1907.
NEW ZEALAND.

PUBLIC ACCOUNTS COMMITTEE.

PUBLIC SERVICE SUPERANNUATION BILL

(REPORT ON), TOGETHER WITH MINUTES OF EVIDENCE AND REPORTS BY THE ACTUARY ON (1) THE CIVIL SERVICE SUPERANNUATION BILL, 1906; (2) THE PUBLIC SERVICE SUPERANNUATION BILL, 1907.

Report brought up on the 14th November, 1907, and ordered to be printed.

ORDERS OF REFERENCE.

Extracts from the Journals of the House of Representatives.

THURSDAY, THE 11TH DAY OF JULY, 1907.

Ordered, "That a Committee, consisting of ten members, be appointed to examine into and report on such questions relating to the Public Accounts as it may think desirable or that may be referred to it by the House or the Government, and also into all matters relating to the finances of the colony which the Government may refer to it; three to be a quorum: the Committee to consist of Hon. Mr. McNab, Mr. J. Allen, Mr. E. G. Allen, Mr. Colvin, Mr. Flatman, Mr. W. Fraser, Mr. Graham, Mr. Laurenson, Hon. Mr. Mills, and the mover."—(Right Hon. Sir J. G. WARD.)

WEDNESDAY, THE 6TH DAY OF NOVEMBER, 1907.

Ordered, "That the Public Service Superannuation Bill be referred to the Public Accounts Committee."—(Right Hon. Sir J. G. WARD.)

REPORT.

The Public Accounts Committee, to whom was referred the Public Service Superannuation Bill, has the honour to report that it has carefully considered the same, and recommends that the Bill be allowed to proceed, with the amendments shown on the copy attached hereto.

14th November 1907. C. H. Mills, Chairman.

MINUTES OF EVIDENCE.

PUBLIC SERVICE SUPERANNUATION BILL.

WEDNESDAY, 13TH NOVEMBER, 1907.

MORRIS FOX, Government Actuary, examined.

1. *Right Hon. Sir J. G. Ward.*] Have you a copy of the Public Service Superannuation Bill, Mr. Fox?—Yes.

2. Would you inform the Committee whether, in your opinion, after examining the Bill that is now before us, this scheme of superannuation for the Civil Service, fixing the contribution by the Government at £20,000 a year, with triennial examination, but with the guarantee of the State omitted and a provision inserted to provide for the payment of any further sums from the Consolidated Fund that may be necessary—would you inform the Committee whether, in your judgment, the scheme if so amended would be a sound one from an actuary's standpoint?—It is absolutely sound from an actuarial standpoint.

3. It is a fact, is it not, that in the proposals contained in this Bill as against the one upon which your general report of last year was based, the responsibilities of the country in some respects are less, and that provision is made to ensure those responsibilities being borne by the contributors to a greater degree?—Decidedly so.

4. Then, as the actuary who has, all through the piece, examined into the various proposals for superannuation which have been submitted to you, you are satisfied with this Bill as we have it from an actuarial point of view?—I have explained in my report that to make the scheme sound I consider a further alteration is required in the Bill. I understood your previous question to be, Would it be sound if that further provision were made?

5. What I meant was omitting the guarantee of the State and providing for a further payment triennially if the actuary so reported?—If that clause of mine providing for triennial readjustment is inserted, it is immaterial whether the payment by the State is set down at £20,000 or £30,000 at first. As I say in my report, the £30,000 is put in because I have reason to believe that that would be sufficient, whereas I am not sure that £20,000 would be sufficient. If the £20,000 were not sufficient, the increase required at the end of the first three years would be an abnormal one, but if £30,000 were put in it would be small.

You write as follows in your report of the 12th November: "In order that effect might be given to these proposals I submitted draft clauses to the Law Office counsel. One clause, providing for actuarial investigation and report, has been embodied in the Bill—section 32, (2)—but I regret that the even more important clause relating to the subsidy has not at present been accepted. I recommended, *and still strongly advocate*, that section 34, guaranteeing any future deficiency in the fund, should be omitted altogether, and that the following should take the place of the present section 33: 'There shall be paid annually into the fund by the Colonial Treasurer out of the Consolidated Fund, without further appropriation than this Act, the sum of thirty thousand pounds, and there shall also be paid into the fund such further sums as may be voted by Parliament triennially for the purpose having regard to the report provided for in section 32 hereof.' I do not insist on the sum of £30,000 as being absolutely necessary; £20,000 will do just as well if provision is made as indicated above for the triennial readjustment of the amount should it be found to be insufficient. I inserted £30,000 because, after strict inquiry, I considered that sum would be sufficient, while I am not sure that a smaller sum would. As I have explained in paragraph 23 of my former report, there are insuperable difficulties in the way of estimating exactly the annual sums which will be required at the initiation of the fund, for until it has been started it is impossible to know, for instance, what proportion of the Service will elect to join the scheme, or how many at present under the pension-age are eligible for pensions on the ground of ill health." If the alteration which you suggest there is made, would you consider that this scheme, from an actuary's point of view, was absolutely sound?—Yes, sir.

6. *Mr. W. Fraser.*] I presume that in making your calculations you formed some idea as to what subsidy will be required. You say that it should be £30,000 to start with, or £20,000 so long as there are triennial investigations. How much would be required after three triennial investigations, do you suppose? Would it be £50,000?—No, not so much as that. If we start with £30,000, I think that instead of £30,000 nearly £45,000 might be necessary; whereas if £20,000 were adequate at first, £35,000 would be necessary in nine years.

7. Is it not the other way about? You say that if you start with £30,000 you will require £45,000 at the end of nine years. If you start with £20,000 you will surely want more?—No. It is in this way: We are all in the dark at present as to how much is necessary at first, but the increase on whatever is necessary will be about the same. I estimate that in nine years an increase of £14,000 or £15,000 will be necessary on whatever is the adequate initial sum.

8. That is, assuming the initial sum to be sufficient to meet the first or the second year's calls?—Yes; it will increase each year. I have put down £30,000 because I expect it will be a trifle under £30,000. It will perhaps be £28,000 the first year, and £31,000 the third year. I think £30,000 is somewhere about the mean of the three years. Of course, if a considerable number of those eligible for pensions elect to take compensation instead, and do not come on the pension fund, it will be less than that.

9. What is the maximum amount which a scheme like this will involve the colony in?—I have explained on previous occasions when I have been here that I have an objection to saying that I can give correct estimates for a long distance ahead; but I can form some idea, and I will give you that idea. Whatever is the initial subsidy required, that will have to go on increasing for a large number of years. I have been looking lately at the composite effect of all the payments for pensions, gratuities, and compensation, totalling £42,000 at present; and the £30,000 added on to that for the first year would make £72,000 to come out of the Government purse. It will never, I consider, be more than that. In the course of twenty years' time the £42,000 will have vanished altogether, roughly speaking. At that time the total yearly outgo will be very much less than the first year's £72,000—very much less; but the £30,000 will have increased. It may have increased to £55,000 or £60,000. That will take the place of everything included in the present £72,000. After the first year £7,000 or £8,000 paid in gratuities will vanish altogether from the total, and so the £72,000 will not all be wanted by that much. Taking the £42,000 that is being paid at the present time per year, I consider that possibly not more than £10,000 per annum over that sum will be wanted for the whole thing eventually. That is about £50,000. I am speaking of fifty years' ahead or more. The amount will have increased to more than £50,000 previous to that, but will be likely to come down to, say, £50,000 as a permanency. That will take the place of everything—there will be no other outgo.

10. For how long will the amount to be paid under the Bill keep on increasing?—For a good many years.

11. Can you give us any idea how long? What I want to get at is what the colony is being committed to?—I will still take the whole lot together—the £42,000 that is being paid now and the £30,000 proposed to be paid out, making £72,000 altogether. I estimate that in about thirty-five years' time the total amount will be about the same as that. It will be all on account of the Pension Fund then—there will be no other outlay. It will certainly have come down in eighty years' time to its final level—say £50,000.

12. *Mr. J. Allen.*] I understand that what you propose is a permanent appropriation of £20,000 a year, and in addition to that a contingent liability after a triennial investigation. Will you explain that?—It is really summarised in my report of yesterday. I will read the portion dealing with it: "The sums so contributed should be used only for the purpose of meeting the portions of the current and future liabilities for which they were intended. That part of the contributions intended to meet a portion of the future liability should be accumulated at interest, and not used for any other purpose." I call these accumulated contributions "the contributed fund." The future liability is principally for the pension at sixty; the current liability is the liability that may emerge at any time, on account of a man falling ill, for instance, or going out of the Service and having his contributions returned to him. The contributions should be ear-marked, as it were, to meet any current liabilities that may arise on account of them, but the great bulk of them should accumulate at interest to meet the future liabilities on account of those persons when they emerge as pensioners. The remainder of the current and future liabilities not provided for by the contributions should be discharged year by year as they emerge by the Government of the day, and no portion whatever of "the contributed fund" should be used for that purpose. I may explain in relation to that that at the present time there are nearly 300 men in the Service over sixty years of age who are eligible to come on to the fund immediately, and they could draw £28,500 straight away as pensions in their first year. On account of them alone there will be deaths each year, and so that amount will gradually diminish till it ceases altogether. But in one year's time, when it is diminished by a small sum, the men who are now fifty-nine years of age will come on to the fund and will increase that amount by more than the sum it will be diminished by through deaths; and in two years' time those now fifty-eight will still add to it. Only in the case of those over sixty will none of the amount be paid for by contributions. Those who are fifty-nine will pay one year's contribution. That will only provide for a very small proportion of their pensions. The Government will have to meet the balance of their pensions. The men who are fifty-eight will pay a slightly larger proportion. That will be reserved to meet their proper portion of the liabilities, and the Government will have to meet the balance, and for some years that will be principally paid by the Government, because there will have been no time for their contributions to accumulate to anything of importance.

13. You say that the liability with respect to these older men will come on, they having paid one contribution to the fund, or none perhaps. Supposing they all came on, what is the provision in the Bill for meeting that?—This £30,000 asked for, at first.

14. But the Bill only provides £20,000?—Yes, and it follows therefore that if they all come on £20,000 is not enough, and that is the very reason why I have put down £30,000. As I have pointed out, it is immaterial, in this way: If at the end of three years' time you have been paying out more, you have been paying it out from the contributions temporarily, and when the adjustment is made at the end of three years it will be paid back.

15. I was going to ask what would happen when the adjustment took place?—An actuarial investigation of the contribution portions of the pensions will be made and the accumulated fund on their account will be ascertained, and it will have to be there; and I shall be able to make for the next three years a good approximate estimate. It will then remain for Parliament to vote the additional amount.

16. Can you give us any idea approximately what the additional amount will be for the next three years—the amount in addition to what we are providing in the Bill?—Yes. Take a concrete case. Supposing that exactly £27,000 is required in the first year, then I feel sure that about £28,500 will be required the second year, £30,000 the third year, and about £1,500 more in the fourth year—perhaps £31,500. That would be how it would go. At the same time I have pointed out that the total outlay from the public purse will not be affected much, because the gratuities, compensations, and the 1866 pensions will decrease by at least as much as that in these three years.

17. You reckon that in order to make quite sure of this, £30,000 should be provided?—Yes.

18. And you still adhere to that, with the alterations made in the Bill?—It is a matter of policy.

19. I am asking you from an actuarial point of view?—I mean that it is immaterial from an actuarial point of view whether it is paid down or in three years' time; but from a practical point of view it simply resolves itself, to my mind, into a question of whether Parliament is more willing to vote £30,000 now and a comparatively small increase if necessary in three years' time, or £20,000 now and a very big increase if necessary in three years' time. That is the whole point.

20. How do the contributions and the benefits under this scheme compare with, say, the Railways or the Teachers?—I have a table in my report showing them all. I may explain that the contributions I put in the Bill last May were the contributions in the Bill of last year. For ages 30 and under, the contributions under the Police, Teachers, and Civil Service schemes are —5 per cent., all the same; and Railways 3 per cent. Ages 31 to 35: Teachers and Public Service, 6 per cent.; Police, 6½ per cent.; Railways, 4 per cent. Ages, 36 to 40: Teachers and Public Service, 7 per cent.; Police, 6½ per cent.; Railways, 5 per cent. Ages 41 to 45: Teachers and Public Service, 8 per cent.; Police, 8 per cent.; and Railways, 6 per cent. Ages 46 to 50: Teachers and Public Service, 9 per cent.; Police, 8 per cent.; Railways, 7 per cent. Over 50: All 10 per cent.

21. The contributions there for the Teachers and the Public Service are the same?—Yes.

22. And are the benefits the same?—No.

23. Which has the advantage?—The Public Service. They are the same with regard to future entrants, but with respect to the present staff the teachers only get half allowance for back service —120ths instead of 60ths. The public servants get the 60ths in full.

24. Is that the only disadvantage the teachers are under?—I do not know of any other. In my report there is a schedule which compares these funds. It is a comparison of benefits under the various schemes. It was not part of the original report, but was supplied to the Premier subsequently. On referring to that I can see how the Teachers' scheme compares. There are differences, but I do not see any material difference.

25. Then, with regard to the benefits under the Police and Railways schemes?—The benefits in the case of the Railways are the same as in this Bill.

26. Though the contributions are very much smaller?—Yes.

27. And the Police?—The Police benefits are not so good. Instead of a maximum pension of two-thirds of the salary they only get a maximum pension of three-fifths.

28. The contributions are less?—On the average they are slightly less.

29. Who will come under the benefits of this scheme? You know, of course, that we already have three other Departments under superannuation schemes. This covers, I suppose, pretty well the whole of the remainder of the service?—Yes.

30. Are there any branches of the service excepted that you know of?—No. My instructions were to include everything but Railways and Police, and such officers of the Education Department as were included in the Teachers scheme.

31. Are there any of the Education Department not included in their scheme which you have not included in this?—Not that I am aware of. What was done was to send out a circular from the Colonial Secretary's Office to all the Departments, instructing them to supply the data with respect to the men employed therein. The Education Department understood that only those who were not under the present Act were to be included. I have here the whole of the original data as to who will come in. My original report commences with a very full summary of the numbers and salaries for males and females from every Department. It is all there. I have classified them as fully as could be desired.

32. Do you know of any public servants who are not included in either of these Bills, last year's or this?—No. Well, of course, this applies to Civil servants and temporary clerks of over five years' service.

33. It will not affect temporary clerks with less than five years' service?—They are not included, but under the Bill, when they have been five years n the service, they are.

33A. Are there any others not included?—There are no classes that are not included. I noticed the other day—I have not had time to inquire into it—that one individual is not included. That is the Inspector-General of Schools. I do not know why. I am not responsible for the correctness of the lists supplied to me. The schedules I have taken as they were supplied by each Department, and Mr. Hogben does not appear to have been included. Of course, the omission of one man does not make any serious difference in working out the figures.

34. How about the Permanent Force provided for under the Defence Act—permanent servants of the Crown?—I looked into that this morning, but I am not able to say. I have here the Defence schedules. If you will refer to them you will see who are included.

35. Will you tell us who are included?—Yes. The minute here says that there were to be included all clerks, storekeepers, receivers of public revenue.

36. I want to get at the officers and men of the Permanent Force?—The officers are included, ut I do not think any of the men are.

37. Take Captain Gardiner: Is he there?—Yes.

37A. Are any of the non-commissioned officers there?—The instructors are, and the sergeants are.

38. Is Sergeant-major Parker included?—I do not see his name. They should all be there. This list is signed by Colonel Webb, Secretary of the Council of Defence. He is responsible for the correctness of it. The point is this: if Sergeant-major Parker has a right to be included he will be included eventually. The fact of his being left off this list will not interfere with it. It will interfere with my results to an infinitesimal extent.

39. As I understand it, then, some of the non-commissioned officers of the Permanent Force are apparently not included?—Apparently they are not.

40. Were they left out intentionally, or was it accidental?—They were not left out intentionally by me. I have taken the schedules supplied to me by each Department.

41. *The Right Hon. Sir J. G. Ward.*] I may say that I have no objection to including the Permanent Artillery—that is, those permanently employed and paid by the State, but not, of course, either Volunteer officers, or Volunteers, or members of the militia. It must apply only to the permanent Government employees.

42. *Mr. Laurenson.*] At what do you estimate the total subscriptions from the Public Service for the first year, Mr. Fox?—That is in the schedule. If they all came in, there would be £64,000.

43. Plus the £20,000 proposed to be paid under the Bill?—Yes.

44. That would be £84,000?—Yes.

45. And you estimate that if everyone entitled to a pension were to come on the fund there would be a maximum charge of £28,500 at first?—Yes.

46. So that at all events for the first three years there would be no necessity for the Government to pay into the fund?—You are mixing up two things. The greater part of that £64,000 is required to accumulate at interest to meet future liabilities.

47. You say that the total payment by the Government, after the lapse of over twenty years, will not be more than £52,000?—I do not think I made use of that expression. I was saying that in eighty years it will have come down to about £50,000; in thirty-five years it will be at its maximum.

48. What I gathered from you was this: that after a certain period, say, twenty years or so, the disbursements by the Government on account of the pensions under the Act of 1866, and the gratuities, and so on, would practically have disappeared?—Yes.

49. And that then the total payment by the Government under this scheme would be represented by a little over £50,000?—I said that it may have increased to £55,000 to £60,000.

50. What I want to get at is this: How many, roughly speaking, are benefited by our present system—that is, how many are benefited by the Pension Act and by way of compensation and gratuities?—In my previous report there is a paragraph which explains that. I will read it:—

"*Compensation, Gratuities, and Existing Pensions.*

"There will be found in Appendix No. 6 a complete summary of the compensation, gratuities, and pensions which have been paid yearly from 1859 to 1906. I have extracted the information independently from the Journals (House of Representatives), and care has been taken to insure their correctness—which cannot, however, be guaranteed. They will be of practical interest, as they show the whole of the Government expenditure which can be effected by the introduction of a superannuation scheme. The total of this expenditure (outside the scheme) will tend to diminish, and will be completely extinguished in time. The gratuities will discontinue immediately, the compensation will cease to accrue further, and the outgo for pensions under the existing Civil Service Acts will eventually cease independently of the superannuation scheme. In reference to existing pensions I have the particulars of the 86 present members of the service who are believed to be the only ones who can become prospective pensioners. I would suggest that the corresponding particulars of the 132 pensioners who were alive in 1906 should be supplied to me. This would be a simple matter, and I could then form a practical estimate of the probable outgo on account of pensions under the existing Civil Service Acts for each future year till they are extinguished. The results would be interesting, and would probably show that the total Government assistance to Civil servants for many years after the introduction of the proposed superannuation scheme will not be so great as might be expected."

51. There are 132 on the pension fund and eighty-six prospective ones?—That is the whole lot who can come on, and those eighty-six are now all fifty years of age or over.

52. Would you have any idea how many people would have benefitted by the gratuities we have voted and the compensation paid?—I have no idea of the number. I doubt if that is given in this return. I have only taken down the amounts, not the number of persons. The gratuities paid last year amounted to £8,000, compensation to £8,000, and pensions £26,000.

53. How many people altogether will be benefitted by the Bill?—Between five thousand and six thousand.

54. I suppose you cannot give us any information as to the saving which will be effected after the Bill comes into force by superannuating old and highly paid men and promoting younger men with shorter service behind them to the positions rendered vacant?—I cannot, but I have no doubt there will be a saving. In my former report I said,—

"*Reasons for Superannuation generally and the Scheme recommended in particular.*

"The advantages arising from well-considered superannuation schemes are so evident that many large employers of clerical and other labour have recognised their importance by adopting schemes of the kind in practice, and the tendency of the present day appears to be in the direction of extending the system. It has been pointed out by others that a sentimental consideration for the employee is not the sole motive for expenditure of this kind by corporations and bodies of men engaged in the profitable investment of capital. They are certainly guided by business principles, and realise that well-considered expenditure in this direction is justified by the ultimate results. All employees are compelled to partially provide for their future, thus relieving their employer of the assistance he would be practically forced to extend in necessitous cases. But perhaps the chief advantages to the employer are that the employees as a body are more firmly attached to his service, and he is enabled to exercise a freer hand in retiring aged employees at high salaries and promoting younger men at lower salaries. All interests are best served in the end by placing on the pension-list old servants who are past their work, and replacing them by younger ones who are in their prime."

55. Do you think the saving effected under that would be material?—It seems to me that it is quite clear it would be so, because if a couple of hundred men go from the higher branches of the service and younger men take their places, we may be quite sure the latter will not all get as high salaries to start with.

56. *Hon. Mr. McNab:* What is the capitalised amount of the concession we are giving each public servant under this Bill? What would it amount to as a payment on their going into the service? I will recall to your mind the figures you gave us in connection with the Education Superannuation Bill. You told us that it was £98, I think, per man, and so much for every woman, on going into the service; it was equivalent to a payment made by the Government on the day each one went into the service. Can you give me the figures showing what it means as a payment at per head?—I could not now. I could work it out and let you have the information.

57. You said that in about eighty years the amount to be paid by the Government would reach a permanent figure of about £50,000?—Yes.

58. You are there only reckoning on the staff remaining as at present, are you not?—No; I am reckoning the incomers. I have assumed for that purpose a liberal supply to the service every year at an average age of about twenty-one.

59. How can you ever have a fixed sum if the public service is capable of indefinite expansion?—It probably would not be fixed. There is almost certain to be, with the country going ahead, an increase on that account too.

60. Will it not be a sum that will increase numerically with the increase of the service?—It is like this: The point where I have got it constant is when the proportion of the pensions of those who entered forty years before at age twenty-one and remain to sixty-one, when the proportion of their pensions which will not be produced from their contributions but have to be made good by the Government, is equal to the decrement going off by death of all those above sixty-one from the pension fund. If the fund is in a constant position there will be an equal decrement by death of those over sixty every year, if there is a constant supply of young people of twenty-one coming on; but, as you point out, it will slightly increase. I cannot go further into it than that. It strikes me that that very slight increasing liability cannot be said to be an undue tax on the increased resources of the Dominion so far ahead.

61. *Right Honourable Sir J. G. Ward.*] With regard to the diminishing point of the pensions and the cessation of gratuities after the passing of this Bill, is it not a fact that with the ordinary annual increase that is going on in the way of fresh appointments to the general services outside of the Railways, Police, and Educational Departments (which have a separate superannuation fund) every year, in the absence of a superannuation system the tendency will be for an increasing amount in the way of compensation and gratuities to be provided by the country?—Yes, the trend will be upwards without a scheme of this kind. The only thing that would come down would be the amount of the pensions paid under the 1866 Act, and they will end in twenty-odd years. The other payments would be increasing; one cannot say how rapidly.

62. So that your calculation as to the possibility of a reduction in the total amount that the country will need to provide in another twenty or fifty years will require to be considered in the light of the increased amount we should have to pay in the absence of a superannuation system each year in gratuities and compensation if we do not have a law such as this?—I think it fairly put in that way.

63. In 1904–5 the total amount of compensation and gratuities came to £21,861?—Yes.

64. In the year preceding that—1903–4—£22,535?—Yes.

65. And in the year preceding that, £13,918?—Yes.

66. I draw attention to this because the basis upon which your calculation is made is about £16,000 per annum for both compensation and gratuities?—I have taken the figures for 1906–7. You have not got them there.

67. Assuming then that the last year was £16,000 in compensation and gratuities, and bearing in mind that as the country goes ahead we must have additional appointments made in the years to come, and remembering also the tendency towards retirement of the older employees, many of whom are now getting up to the point when they must be retired, and that they will receive compensation and gratuities, you have nothing definite of course to base your views on that the amount required will not exceed £16,000 per year in future?—I have nothing to go on, of course, but this very irregular yearly outgo on that account; but the tendency must be to increase.

68. *The Chairman.*] I have had several inquiries from those interested as to whether the amount payable to a widow could not be increased. Would it need a very large difference to be made in the contributions to increase the sum payable to a widow from £18 to £26 per year?—To increase that payment would not increase materially the liability for the first few years. It would materially increase the liability in years to come when numbers of the members died and the widows drew the higher amount. The scheme that I really advocated myself was the scheme in the Bill of last year, with the exception that annuities should be payable to the widows of pensioners as well as those of contributors who die while in the service and should be increased from £18 to £26 a year. From an actuarial point of view that would increase the liability, but I might point out that it would not increase the present outlay of the country very much. It would increase the future outlay. It is not a question whether the contributions should be increased, because I realise that they cannot be increased any higher than they are.

69. It would not materially increase the amount paid from the consolidated revenue?—Not for some years, but it would eventually, of course.

70. Did I understand you to say that the contributions paid by the railway servants were less than those proposed in this Bill?—Yes, at the younger ages. Up to the age of fifty I think they are about 2 per cent. less.

71. Do you consider the risks much greater in the railway service than in the Civil Service?—The risk of death may be, but that does not come under this; it comes under the Workers' Compensation for Accidents Act.

72. *Mr. J. Allen.*] Do the High School Boards' staffs and the University professors and lecturers come under this scheme?—I cannot tell you whether they have a right to come in under the Bill.

73. What about the masters of the High Schools?—I am sure they are not in.

CIVIL SERVICE SUPERANNUATION BILL, 1906

(REPORT OF THE ACTUARY ON).

APPENDICES.

N.B.—The Bill referred to throughout is the Civil Service Superannuation Bill, 1906.

Wellington, 3rd July, 1907.

Reference.

1. On the 24th October, 1906, the Public Accounts Committee, in a report to the House of Representatives, recommended "that the Civil Service Superannuation Bill, as submitted, or any other suggested scheme that will meet the position, be referred to the Actuary for examination and investigation, and that he be requested to furnish a full report on such scheme in time to enable it to be dealt with next session."

Data.

2. On the 28th January I received instructions to include all Departments except Railways and Police. A circular was forwarded to the Departments (with the exceptions mentioned) by the Colonial Secretary's Office on the 27th February, asking for the necessary data, the last return of which was received by me on the 19th April. Since then I have given the closest attention to the matter.

The required information was furnished respecting 5,593 persons to whom it was thought the provisions of the Bill would apply, distributed amongst the various Departments as follows:—

No.	Department.	Males.	Females.	Total Number.	Total Salaries.
					£
1	Post and Telegraph	2,275	297	2,572	333,420
2	Lands and Survey	324	19	343	76,440
3	Justice	190	1	191	46,937
4	Agriculture	182	..	182	41,757
5	Mental Hospitals	268	165	433	39,635
6	Customs	188	4	192	35,705
7	Public Works	170	5	175	34,893
8	Printing and Stationery	173	40	213	31,179
9	Government Life Insurance	123	12	135	24,944
10	Prisons	120	13	133	20,015
11	Roads	96	2	98	19,780
12	Marine	107	1	108	16,429
13	Valuation	77	4	81	15,660
14	Defence	73	1	74	14,854
15	Colonial Secretary	60	4	64	12,229
16	Public Trust	65	13	78	11,749
17	Land Transfer and Deeds Registry	50	1	51	11,742
18	Tourist and Health Resorts	43	5	48	10,022
19	Native	32	..	32	9,830
20	Mines	39	..	39	9,619
21	Labour	43	4	47	9,314
22	Audit	40	2	42	9,245
23	Land and Income Tax	42	2	44	9,119
24	House of Representatives	30	6	36	8,549
25	Treasury	37	7	44	8,175
26	Public Health	22	..	22	6,557
27	Inspection of Machinery..	24	1	25	6,182
28	Education (excluding those coming under "The Teachers' Superannuation Act, 1905")	25	13	38	5,486
29	Stamps	22	4	26	4,750
30	Crown Law	7	..	7	3,760
31	State Fire Insurance	25	2	27	3,555
32	Registrar-General	16	..	16	3,478
33	Advances to Settlers	19	..	19	3,115
34	Old-age Pensions	18	..	18	3,081
35	Legislative Council	5	..	5	1,710
36	Hospitals	2	1	3	1,460
37	Electoral	5	..	5	1,192
38	Friendly Societies	4	1	5	1,190
39	Land for Settlements	2	..	2	1,010
40	Industries and Commerce	2	..	2	875
41	Colonial Museum	3	..	3	826
42	Native Land Purchase	1	..	1	525
		5,049	630	5,679	909,993
	Deduct 86 Civil servants entitled to pensions under Civil Service Acts, and not eligible under the present Bill	86	..	86	33,868
	Totals	4,963	630	5,593	876,125

Classification of Data.

3. A classification of these 5,593 persons according to present age and class of employment will be found in Appendix No. 2 of which the following is a summary, arranged to show the numbers of permanent and temporary (over five years' service) employees respectively:—

Class.	Males.			Females.			Total.		Grand Total.
	Permanent.	Temporary.	Total.	Permanent.	Temporary.	Total.	Permanent.	Temporary.	
Professional, &c.	740	34	774	9	0	9	749	34	783
Clerical	1,856	122	1,978	364	6	370	2,220	128	2,348
Non-clerical (indoor)	1,356	86	1,442	227	23	250	1,583	109	1,692
" (outdoor) ..	716	53	769	1	0	1	717	53	770
Totals	4,668	295	4,963	601	29	630	5,269	324	5,593

"Professional, &c.," includes heads of Departments, principal officers, and experts.
"Clerical" includes clerks, accountants, auditors, registrars (non-legal), collectors of Customs, readers, and reporters.
"Non-clerical (indoor)" includes telegraphists, postmasters, distributors and sorters, mail-supervisors, messengers, attendants, custodians, warders, gaolers, bailiffs, criers, nurses, matrons, charwomen, laundresses, compositors, bookbinders, folders, mechanicians, storemen, cooks, indoor artisans.
"Non-clerical (outdoor)" includes letter-carriers, linemen, lighthouse-keepers, landing-waiters, overseers of public works, gardeners, labourers, mechanical engineers, rangers, rabbit agents, boatmen, farm hands, and outdoor artisans.

Summaries of Statistics.

4. I have not found it necessary to go into the question of the different classes of occupation further than to make these statistical summaries for general information. Although it is evident from the salary-scales that the "non-clerical" would not require quite such high rates of contribution as the "clerical" and "professional" in order to purchase retiring pensions on the same scale, the Bill provides for the same rate of contribution from all employees of the same age, irrespective of the nature of their employment. Nor do I think any other course would be desirable, for the lower-paid employees will receive relatively more favourable treatment in respect

of death benefits, as it is proposed to grant equal annuities to widows and orphans, regardless of the amount of salary and contribution.

Basis of Valuations.

5. It is presumed that the 5,593 persons referred to would all have been eligible as members of the fund if it had come into operation on the 31st March, 1907, and in order to examine the financial aspects of the scheme it is necessary to carefully value the liabilities resulting from the application to the whole of that body of the rates of contribution and retiring benefits. The basis upon which this valuation is made being naturally of great importance I think it desirable to set out in detail the assumptions made and the statistical foundations of the calculations. I feel this to be all the more necessary because, unfortunately, I am aware that the use of recognised actuarial methods, though admitted in smaller matters, is viewed with disapprobation and absolute suspicion by many people when applied to the investigation of certain complicated statistical and financial matters, although these matters peculiarly depend for their ultimate success on a proper treatment of problems involving a reasonable estimate of many probabilities—of life and death, widowhood, orphanhood, bachelorhood, increases in salary and retirement from service; all these being spread over a long series of years and combined with the interest-earning power of money. While it is impossible in individual cases to make an accurate estimate of such matters, it is found that in a large body of persons the numbers living, dying, or doing acts within their own control, such as resigning or marrying, are singularly constant from year to year.

Rate of Interest.

6. As to the financial basis, 4 per cent. is the rate of interest which I have assumed in the calculations. When consulted by the Right Hon. the Prime Minister last session I gave my opinion that the most satisfactory way of dealing with this matter would be for the Government to guarantee that rate of interest on the fund, as is done by many of the British railway companies in their pension schemes. With the powers of investment allowed by the Bill the fund will probably be able to earn more than 4 per cent. for some years, but without a guarantee it would not be justifiable to assume so high a rate as 4 per cent. over a long period of time. The difficulty would be entirely disposed of by guaranteeing the interest, and, whatever scheme is ultimately adopted, I strongly advise that this guarantee should be given, independently of the form any additional assistance may take. If this be not given the true liability will be greater, and if I am instructed to supply a 3½-per-cent. estimate I shall require a few weeks to complete the matter.

Mortality Table.

7. A pension fund must be of great age before a reliable mortality table can be based on the experience of its own members. It is therefore imperative to select as a basis a table founded on some other experience, and I have employed, for adults, the late Dr. Farr's well-known table relating to certain healthy districts in England, which I consider particularly appropriate to a New Zealand fund of this description.

Widows and Orphans' Annuities.

8. The necessary statistics (with the exception of the mortality experience) for ascertaining the liability on account of widows and orphans' annuities might be obtained from the experience of members and their families, but in order to avoid delay the information asked for was restricted to such as could be obtained from the departmental staff registers without reference to individual officers. For this purpose, therefore, I have used statistics derived from outside sources.

For children's annuities I have used the mortality experience of the children of a large body of Scottish Presbyterian ministers, which was investigated by Mr. Archibald Hewat in 1902.

The probabilities of leaving children, with their ages, have been taken from the New Zealand population returns (1895 to 1899).

The probabilities of leaving a widow or dying unmarried have been derived from English census statistics utilised by Mr. George King in his investigation relating to family annuities.

The ages of widows at death of husbands have been taken from the scale adopted by Mr. H. W. Manly in his "Hypothetical Experience (1903)."

Age at Retirement.

9. The average age at retirement is an important consideration. The optional age in the Bill is 60 for male contributors, but it is probable that many will not retire until after that age, thus making the average age later than 60. On the other hand, they will be allowed to retire as a matter of right before reaching 60 when they have served for 40 years, or, with the consent of the Board, after 35 years. Therefore all those who are under 20 when joining the service will be able to retire on pension between 55 and 60, and some of them between 50 and 55. For female contributors the optional age of retirement is 50, or earlier if there has been 30 years' service. Under the circumstances I have thought it right to assume that males will retire at 61, and females at 51, on the average.

Premature Retirements and Withdrawals.

10. Having no data to work on I am not able to estimate the strain on the fund on account of premature retirements on pension through medical unfitness for work, nor the relief that will ensue from those voluntarily retiring and leaving the interest on their accumulations in the fund. Fortunately these will tend to counteract each other, and, although I cannot speak confidently on this matter, I do not think the balance on either side will be very material, but the necessity is thereby shown for periodical investigations of the progress of the fund.

Scales of Salaries.

11. The contributions and benefits (except those payable to widows and children) and the valuation of them depend on the amount of salary received, *taking into account prospective increases in salary.* The average salary received at each age at the present time has been deduced

from the schedules, and these average salaries have been graduated to remove irregularities. The present salary of each person has then been assumed to increase from age to age in the same ratio as that of the graduated scale. The average and graduated salaries for males and females are shown hereunder:—

SCALE OF SALARIES.

Males.						Females.					
Age.	Average Salary.	Graduated Salary.	Age.	Average Salary.	Graduated Salary.	Age.	Average Salary.	Graduated Salary.	Age.	Average Salary.	Graduated Salary
	£	£		£	£		£	£		£	£
15	32·3	35·0	38	195·7	200·5	15	..	..	38	93·8	94·3
16	49·4	42·0	39	210·6	206·5	16	40·0	40·0	39	98·8	95·5
17	49·8	50·0	40	218·5	212·5	17	40·0	40·8	40	92·9	97·1
18	54·6	58·5	41	211·2	219·5	18	42·5	43·0	41	..	98·8
19	61·6	67·5	42	233·4	225·5	19	44·9	46·0	42	71·7	100·8
20	77·8	77·0	43	236·7	233·0	20	45·7	49·2	43	87·7	102·2
21	88·8	87·0	44	233·0	238·0	21	56·1	53·0	44	166·7	103·2
22	99·6	96·0	45	245·0	242·5	22	61·3	56·7	45	118·2	104·0
23	109·0	106·0	46	259·6	246·5	23	62·2	60·0	46	140·0	104·0
24	115·8	116·0	47	234·5	249·0	24	70·7	63·6	47	85·0	104·0
25	124·0	125·6	48	251·8	251·0	25	67·2	67·2	48	70·0	104·0
26	135·6	135·5	49	299·7	252·5	26	71·5	70·0	49	97·2	104·0
27	137·6	143·0	50	233·0	253·0	27	68·7	73·0	50	100·0	104·0
28	149·1	149·5	51	249·8	253·0	28	66·0	75·8			
29	164·1	156·0	52	232·9	253·0	29	89·6	78·3			
30	162·6	161·0	53	248·0	253·0	30	80·8	80·7			
31	168·7	165·5	54	268·6	253·0	31	77·1	83·0			
32	163·2	170·5	55	262·3	253·0	32	80·8	85·0			
33	173·4	175·5	56	286·8	253·0	33	106·4	87·0			
34	177·2	180·0	57	243·4	253·0	34	78·5	88·8			
35	175·9	185·0	58	227·1	253·0	35	82·3	90·2			
36	199·4	189·5	59	255·6	253·0	36	81·8	92·0			
37	187·5	194·5	60	231·9	253·0	37	97·5	93·2			

Results of Valuations.

12. I will now draw particular attention to the table in Appendix No. 5, which contains the results of valuations of the scheme in the Bill and of various modifications. No other schemes than the one in the Bill have been submitted to me, except the proposal of the Public Accounts Committee of last session that back service should only count for half-pensions, but certain proposed alterations have indirectly come under my notice, and I have fully dealt with each of them. It will be noticed from the table referred to that the capital value of the full actuarial liability involved ranges from £2,042,000 to £1,338,000, according to the nature of the scheme. These results will doubtless appear large, but they require analysis and explanation before their real meaning can be fathomed.

Explanatory Illustration.

13. For the purpose of illustration I take the valuation of a series of contracts of a simpler nature than those with which we are actually concerned. Let us consider the various liabilities incurred (on a 4-per-cent. basis) by a Government undertaking to pay—(1) £400 a year in perpetuity; (2) £600 a year for twenty-eight years; (3) pensions, commencing at £1,000 a year, on the lives of men aged 60; (4) £10,000 a year deferred pensions after 60, on the lives of boys now aged 15 (without any contributions from the boys); and (5) £20,000 a year similarly deferred pensions (with about half the necessary contributions from the boys). It would be quite impossible to compare these annual payments, differing so largely in amount and status, without ascertaining the present value of each set, or the sums which, paid now and invested at 4 per cent., would probably be sufficient to make all the payments as they fall due until the last. The following schedule gives these present values:—

Description of Contract.	Present Value of Net Liability involved in the Contract.
	£
(1.) £400 a year payable in perpetuity	10,000
(2.) £600 a year payable for 28 years	10,000
(3.) £1,000 a year payable as pensions of £100 each to 10 men now aged 60	10,120
(4.) £10,000 a year payable as deferred pensions of £100 each to the survivors at age 60 of 100 boys now aged 15, *without any contributions from the boys*	10,890
(5.) £20,000 a year payable as deferred pensions of £100 each to the survivors at age 60 of 200 boys now aged 15, *with contributions of £3 a year from each boy*	10,250

The above schedule shows that these series of payments, *varying so greatly in nature and amount*, are all worth approximately *the same*, the liability involved being about £10,000 in each of the five.

Different Kinds of Liabilities.

14. Another important aspect will be made clear from a consideration of the foregoing schedule in reference to the essentially different nature of some of these liabilities. In No. (1) it is the simple case of a constantly recurring liability met by uniform recurrent payments of £400 a year. In No. (2) the liability is more largely a present one, and might be liquidated either by 28 yearly payments of £600 each or by a present single payment of £10,000; while No. (3) is still more of a present liability, and might be met either by yearly payments commencing at £1,000 and decreasing yearly till the death of the last pensioner, or by a present payment of £10,120. Nos. (4) and (5) are of an entirely different character. Although the present pay-

ment of £10,890 or £10,250 would liquidate the liability once for all, that liability does not begin to accrue until 45 years from now. In these cases, therefore, it is clearly a matter of opinion as to how much (if any) of the deferred liability should be met by present contributions from the Government and the deferred pensioners, and how much should be left to be met by the Government of 45 years hence; on the one hand, how much it is considered practicable or desirable to take in yearly contributions from the prospective pensioners to meet a portion of the liability when it accrues, and, on the other hand, what proportion (if any) of the balance of future liability should be met by the present, and what proportion should be left to the future, Government.

Proper Treatment of Liabilities.

15. From this point of view perhaps the question assumes a political, rather than an actuarial, aspect; but, as the outlines are not very distinct, and as I have been instructed to report thoroughly, I shall take the liberty of stating fully my opinion upon the matter in all its practical bearings. A further consideration of Nos. (4) and (5) in the foregoing schedule will show what line of action I consider to be necessary in order to place a Government scheme of deferred pensions to its employees on a sound footing. In No. (4) no contributions are exacted from the prospective pensioners, and, if the Government decides that the whole of the future liability shall be left to future generations to meet as they accrue, as is done by the Imperial Government in connection with Civil Service pensions, no accumulations at all are necessary to form a fund. It is, however, generally considered desirable, in such schemes as the one now under examination, that the members should themselves contribute some portion of the amount necessary, as in No. (5). Here the full contributions would be about £6 per member, whereas they are required to pay £3 each, which, if properly accumulated, should meet half the liability, the other half being left to be met when it accrues by the Government of the day. Now, it is important that these contributions should be strictly reserved and accumulated to meet their half of the liability, and not used in earlier years to pay other claims which have not been provided for by contributions. *Such claims should certainly be met from other sources as they fall in, and not discharged by using accumulations formed for the purpose of meeting altogether different liabilities.* If this is done the fund, assuming that it is otherwise conducted properly, will be found at successive investigations to be sufficient to meet half the liability, which was all it was intended to meet, and it is therefore sound from any point of view.

Age.	Number.	Prospective Pensions (Males) on Account of		
		Back Service.	Future Service.	Total.
(1)	(2)	(3)	(4)	(5)
		£	£	£
81	1	46	..	46
80	1	56	..	56
79	1	467	..	467
78	2	33	..	33
77	2	82	..	82
76	4	252	..	252
75	4	857	..	857
74	3	195	..	195
73	7	949	..	949
72	4	323	..	323
71	7	538	..	538
70	9	426	..	426
69	10	719	..	719
68	26	2,709	..	2,709
67	21	1,929	..	1,929
66	26	3,244	..	3,244
65	32	3,977	..	3,977
64	39	3,197	..	3,197
63	29	2,912	..	2,912
62	33	2,831	..	2,831
61	31	2,834	..	2,834
..	292	28,576	..	28,576
60	31	2,583	120	2,703
59	50	4,731	426	5,157
58	44	3,404	500	3,904
57	33	2,918	536	3,454
56	40	4,058	956	5,014
55	37	4,064	971	5,035
54	47	4,361	1,473	5,834
53	58	5,052	1,918	6,970
52	62	5,350	2,166	7,516
51	73	6,654	3,039	9,693
50	75	5,649	3,203	8,852
49	93	9,175	5,585	14,760
48	85	7,200	4,675	11,875
47	78	6,294	4,337	10,631
46	84	6,699	5,596	12,295
45	92	6,884	6,272	13,156
44	85	5,426	5,964	11,390
43	85	5,568	6,554	12,122
42	92	5,662	7,627	13,289
41	88	4,786	7,139	11,925
40	92	5,500	8,375	13,875
39	109	6,156	10,310	16,466
38	101	5,575	9,558	15,133
37	97	4,611	9,462	14,073
36	107	5,345	11,869	17,214
35	105	4,676	10,944	15,620
34	102	4,149	11,432	15,581
33	106	3,879	12,366	16,245
32	107	3,605	12,522	16,127
31	139	5,072	17,927	22,999
30	152	4,961	20,071	25,032
29	143	4,264	20.294	24,558
28	107	2,612	14,846	17,458
27	119	2,438	16,419	18,857
26	136	2,576	20,092	22,668
25	129	1,941	19,333	21,274
24	132	1,577	20,549	22,126
23	117	967	19,273	20,240
22	171	735	29,176	29,911
21	217	..	37,341	37,341
20	225	..	38,334	38,334
19	247	..	38,047	38,047
18	156	..	24,550	24,550
17	140	..	23,536	23,536
16	74	..	14,694	14,694
15	9	..	1,402	1,402

16. In the previous paragraph I have referred to other claims than those provided for by the contribution of members, and in order to illustrate this point I place in the margin a table (extracted from Appendix No. 4) of prospective pensions to males arising from the scheme contained in the Bill. The third column shows the pensions for back service, for which no contributions can have been made. It will be seen that if the 292 men over 60 all retired on pension immediately (all of whom have the right to do so), the sum of £28,576 would be payable during the first year on their account. (In practice we know it will not be nearly so much as this because they will *not* all retire immediately, but on the other hand many under the proper retiring-ages will retire at once on the ground of ill health.) The whole of this (or so much of it as may be claimed) should, I maintain, be provided for by the Government, and not taken out of the contributions of the younger members, which are required to provide in part for their own future liabilities. Of course, this outgo will diminish as the pensioners die off. If it be deliberately resolved to offer these pensions it should also be recognised that they constitute a present liability, and they should be met out of the present resources of the State. In each succeeding year it will also be necessary to similarly provide the pensions which will become due on account of back service to the survivors of the present members shown in the table as living at each age under 60 down to age 22. For example, at age 50 there are now living 75 men, and if they all lived (and remained in the service) ten years, £5,649 would *then* be due as pensions for back service on their account. It is only, however, the survivors (remaining in the service) of the 75 for whom it will be necessary to provide. To go further, and take the men now aged 30 (152), I do not consider it is necessary to provide anything *now* on their account, but that the liability for the survivors at 60 (so far as back service is concerned) may legitimately be left to be met when it accrues—30 years hence. Eventually this liability for back service will vanish entirely if it is met as it yearly accrues.

17. Again, referring to column (4) it will be seen that the 75 men now aged 50 would, if they survived and remained ten years, be entitled to £3,203 a year for their future ten years'

service, in addition to the £5,649 for back service. These men will be contributing 10 per cent. of their salaries during the next ten years, whereas the full rate necessary would be approximately 15 per cent. Thus, two-thirds of their future-service pensions will have been purchased by their own contributions, *if those contributions have been safeguarded as advocated in paragraph 15*, leaving the remaining one-third of the survivors' pensions to be defrayed by the Government, in the same way as the whole of the back-service pensions. I shall give further on the full rates of contribution necessary at various ages, and it is for the Government to say what proportion of these rates shall be required from the contributors to the fund.

18. In the preceding paragraphs I have endeavoured to make myself understood by means of certain illustrations, but as the principle involved is of great importance I will briefly recapitulate. The following constitute the minimum requirements upon which, in my opinion, a Government scheme of pensions to employees may be started on a sound footing:—

The scale of pensions and other benefits having been settled,—

(1.) The full rates of contribution necessary at different ages to provide these benefits for the years of future service should be ascertained.

(2.) The proportion of these rates which shall be contributed in future by the members should be decided by the Government.

(3.) The sums so contributed should be used only for the purpose of meeting the portions of the current and future liabilities for which they were intended.

(4.) That part of the contributions intended to meet a portion of the future liability should be accumulated at interest, and not used for any other purpose. (These accumulated contributions are referred to afterwards as "the contributed fund.")

(5.) The remainder of the current and future liabilities not so provided for by the contributions should be discharged year by year, as they accrue, by the Government of the day, *and no portion whatever of "the contributed fund" should be used for that purpose.*

(6.) An actuarial investigation of the fund should be made triennially (or quinquennially) in order to test the sufficiency of "the contributed fund," and to ascertain the probable extent of the presently accruing liability which will have to be met by the Government during the succeeding three (or five) years.

Differences in Schemes explained.

19. Appendix No. 5 contains summaries of the valuation results of the scheme in the Bill, and seven modifications.

The first four schemes in the table provide (*inter alia*) annuities of £18 to widows.

I (18) is the same as the scheme in the Bill, with the exception that the annuities are payable to the widows of pensioners as well as to those of contributors who die while in the service.

II (18) is the scheme in the Bill itself, the benefits in connection with which are summarised in Appendix No. 1, the rates of contribution being 5 per cent. of salary if the age does not exceed 40 when joining the scheme, 6 per cent. from 41 to 45, 7 per cent. from 46 to 50, and 10 per cent. over age 50.

III (18) is the scheme in the Bill except that the scale of contributions is modified as follows: 5 per cent. if the age does not exceed 30, 6 per cent. from 31 to 35, 7 per cent. from 36 to 40, 8 per cent. from 41 to 45, 9 per cent. from 46 to 50, and 10 per cent. over age 50.

IV (18) is the scheme in the Bill, modified to give only half-scale pensions for back service.

The last four schemes in the table are the same as the first four, but further modified to give annuities of £26, instead of £18, to widows. It will be seen that the bulk of the liability (columns 2 and 3)—viz., that for pensions to members themselves—is the same in all of the schemes, except in IV (18) and IV (26) where the liability for back-service pensions is reduced by practically one-half; this matter receives attention in paragraphs 24, 25, 26, and 27.

Rates of Contribution.

20. The present value of the only prospective asset—viz., future contributions (column 9)—also remains the same throughout, except in III (18) and III (26). The full contributions required at different ages to furnish the benefits given in the Bill are as follows: At age 18, 8·6 per cent. of salary; at 23, 9·3 per cent.; at 28, 9·8 per cent.; at 33, 10·4 per cent.; at 38, 11·1 per cent.; at 43, 12·1 per cent.; at 48, 13·6 per cent.; at 53, 15·6 per cent; and at age 58, 17·9 per cent.; while the contributions in the Bill and in the New Zealand Government schemes already in existence are given hereunder:—

Age.	Police Fund.	Railways Fund.	Teachers' Fund.	Civil Service Bill, 1906.
30 and under	5 per cent. ..	3 per cent. ..	5 per cent. ..	5 per cent.
31–35..	6½ „ ..	4 „ ..	6 „ ..	5 „
36–40..	6½ „ ..	5 „ ..	7 „ ..	5 „
41–45..	8 „ ..	6 „ ..	8 „ ..	6 „
46–50..	8 „ ..	7 „ ..	9 „ ..	7 „
Over 50	10 „ ..	10 „ ..	10 „ ..	10 „

It will be seen that, although the contributions for persons who are over 50 when joining the fund are the same in each of the above four funds, they vary considerably for members under 50. In schemes III (18) and III (26) I have used the modified scale of contributions already described, which was the one adopted for the Teachers' Fund, and which requires higher contributions than those of the Bill between ages 30 and 50—viz., from 31 to 35, 6 per cent. in place of 5 per cent.; from 36 to 40, 7 per cent. in place of 5 per cent; from 41 to 45, 8 per cent. in place of 6 per cent.; and from 46 to 50, 9 per cent. in place of 7 per cent. The result is that, by increasing the value of the prospective assets, the net liability is correspondingly reduced. My purpose in dwelling on this is to point out that the effect of decreasing the rates of contribution at the younger ages is not to increase the liability accruing during the earlier years of the scheme, but to throw an additional liability on to future years, and this I hope will be done (*i.e.*, that the lower contributions in the Bill will be adopted), although, as I have already stated, the point to be decided is not an actuarial one. As the rates of contribution remain the same after age 50—viz., 10 per cent.—it is clear that the Government's liability emerging during the next ten years will remain unaltered in this respect, or practically so, and the increase after ten years will be a gradual one, commencing at a low figure.

Proposed Manner of meeting Liability.

21. Although the inevitable liability incurred in starting a scheme of this nature might be met either by a present payment of a huge capital sum or the yearly interest on it (*e.g.*, in the scheme of the Bill, by a payment of £1,816,719, or a yearly payment of £72,669, being 4 per cent. interest thereon) it will have been seen that I do not advocate either course. The first would be impracticable; the second, while not absolutely impracticable, would involve much larger initial payments than I consider are equitably required. In my opinion, the back-service liability should be met year by year as it accrues; in regard to the liability for future service, it having been ascertained what are the full contributions which would bé necessary to provide the benefits, such proportion of those contributions as may be thought proper should be demanded from the members and accumulated to meet the same proportion of the future liabilities as they fall due. The remaining future liabilities not provided for by members' contributions should be met year by year, as they accrue, by the Government of the day. In order to give effect to this arrangement it will be necessary to have a periodical actuarial investigation of the fund to ascertain the amounts which will be required from time to time to meet the balance of current outgo without trenching on "the contributed fund" connected with the contributions.

22. The essence of my proposals is that the portion of the liabilities which will be met by the members' contributions shall be dealt with actuarially, while no actuarial accumulation shall be made on account of the remainder of the liabilities not so provided for, which shall be met, as they actually accrue from year to year, by the Government of the day. I am satisfied that a scheme so managed will be on a sound financial basis, while requiring the minimum of assistance that can safely be given.

Liability accruing during First Three Years.

23. In advising as to the probable outgo of the first three years of the scheme I am in a very different position from that I shall occupy at the first triennial investigation in regard to the second three years, because there is at present no experience whatever of members respecting retirements and withdrawals. The bulk of the outgo will result from the payment of pensions to those entitled to retire immediately. If they all went on the fund at the outset the claims on their account would amount to approximately £27,800 in the first year, £26,600 in the second, and £25,300 in the third year—this outgo decreasing yearly. On the other hand, the pensions which will become due to those now aged 57, 58, and 59 (or 47, 48, and 49 in the case of women), who may become pensioners during the triennium, though small at first, will be of an increasing nature, and the contributions of these members will not have had time to accumulate to an appreciable amount. Taking everything into consideration, I think that a yearly subsidy of £30,000 will be sufficient for the first three years. As I have said, however, I am quite unable to estimate the relief to the fund which will be experienced through members abstaining from retiring immediately they have the right to do so, nor am I able to estimate the strain upon the fund which will result from members under the pension-ages being retired on pension owing to ill health. This disadvantage will apply with less force at each successive triennial investigation in consequence of the accumulation of statistics of the actual experience of members in these respects. But, as I have said, I think a yearly grant of £30,000 will supply all that will be required during the first three years. I may also point out that it would not be necessary to increase this grant whether the scheme in the Bill or any of the modified schemes be adopted (nor even if effect be given to Mr. George Allport's suggestion*, that members' contributions should be returned to their widows in addition to the small annuities at present proposed), because so very trifling a proportion of the additional liability can fall in the first three years.

Reduced Pensions not advocated for Back Service.

24. One of the principal suggestions that have been made for reducing the cost of superannuation is to grant half-pensions only for back service—that is to say, for the period between the entry into the service of present members and the date when the scheme comes into operation. The result would be that the pensions of all those now over 60 (women, 50) would be reduced by one-half, and the pensions of the older members now in the service under 60 (women, 50) would be greatly reduced. The expedient would *apparently* have the effect of reducing the present initial annual cost to the Government from £30,000 to £15,000, a yearly saving which would disappear with back service itself in course of time. I take it that this anticipated saving in the present cost is the only reason why half back service is advocated. On looking into the matter, however, I find the strongest reasons to believe that the immediate outlay would be seriously *increased* by the adoption of these reduced pensions for back service; and I will explain the cause of this paradoxical result.

25. To begin with, I will again take an illustration. A man now aged 68 has been in the service 29 years, and his salary is £400. He is entitled to retire on pension at once; the full pension would be £193 6s. 8d., the half-pension £96 13s. 4d. Rights to compensation already accrued being very properly safeguarded in the Bill, he has also the option of taking instead his compensation under section 12 of "The Civil Service Act, 1866"; the compensation for 29 years'

* *Vide* Report of Public Accounts Committee (I.-11, 1906, Sess. II). I recommend the *partial* adoption of this suggestion (par. 28).

service in his case would be £966 13s. 4d., for which he could secure an annuity of £111 17s. per annum from the Government Insurance Department. It is evident, therefore, that if he retired, voluntarily or compulsorily, he would take the full pension of £193 if allowed to do so, but he would certainly reject the half-pension of £97 in favour of £967 cash, which he could invest in the purchase of an annuity of £112, or otherwise.

26. Compensation is one-twelfth, and half-pension is one one-hundred-and-twentieth, of final salary for each year's service, so that the half-pension is always exactly 10 per cent. of the total compensation. The actual annuity which can be purchased from a life office is about 10 per cent. of the purchase-money at age 64, and the percentage increases with the age to nearly 20 per cent. at age 80, so that all those over 64 could get a much better bargain by investing their compensation in life annuities. This makes a certainty of a large selection against the Government, as there are 199 men now aged 64 and over whose salaries amount to slightly over £50,000, so that, taking a moderate estimate of the average service of these men as 24 years, it is clear that the adoption of the half-pension clause would expose the Government to a possible call of £100,000 or more during the first year. I do not say this is a probable result, but it is clear to me that the actual result would be entirely to obliterate the immediate saving looked for.

27. From another point of view, also, there are most serious objections. The half-pensions would give but little satisfaction, and it is highly probable—indeed, to my mind, certain—that very many of the older men now under pension-age would remain outside the scheme, thus largely defeating one chief object of its introduction—viz., to eventually get rid of the present system of compensation and gratuities altogether, and to consolidate the whole of the assistance given by Government to its employees in one comprehensive scheme. Like many other apparently cheap bargains, I think the half-pensions plan would in reality prove expensive while giving satisfaction to none.

Recommendations.

28. As the outcome of my investigation I have no hesitation in respectfully recommending that the modification of the scheme of the Bill contained in I (26), (Appendix No. 5), be adopted on the general lines I have indicated. If this recommendation should be approved it will necesitate the following amendments in the Bill:—

(1.) That the interest credited to "the contributed fund" shall not be at a lower rate than 4 per cent.

(2.) That the widows' annuities shall be increased from £18 to £26.

(3.) That the annuities shall be payable to the widows and children of pensioners as well as to the widows and children of members who die while in the service.

(4.) That a yearly grant of £30,000 shall be made during the first three years.

(5.) That this yearly grant shall be increased (or decreased) from time to time in the manner explained heretofore, in order to meet the yearly accruing liability unprovided-for by members' contributions.

(6.) That, in order to ascertain the necessary periodical grants, a triennial actuarial investigation of the fund shall be made, the triennial report to state what will be the probable sum required for the ensuing three years.

(7.) There will be no necessity to retain the present provision for the guarantee of any deficiency in the fund.

It is provided in the Bill that no payments shall be made from the fund during the first eleven months. I see no reason why this limitation should be made if my recommendations are approved. The only effect would be to delay the retirements of the present aged members of the service, thus causing hardship in individual cases and unnecessarily delaying the complete working of the scheme.

In the Bill the annuity provisions apply "in the case of a female contributor who dies leaving a husband or children her surviving." I question the desirableness of including "the husband."

I think the absolute or contingent rights of members in regard to accumulations and policy-moneys under the various Acts ("The Civil Service Reform Act, 1886," "The Post and Telegraph Classification and Regulation Act, 1890," and "The Civil Service Insurance Act, 1893"), and compensation under section 12 of "The Civil Service Act, 1866," should be fully safeguarded as in the Bill, but I also think that the Bill might with advantage be simplified and made clearer in these respects.

I think it would be better that the provisions for the application of "The Government Railways Superannuation Fund Act, 1902," to the employees of the Wellington and Manawatu Railway Company should be struck out, and dealt with in a separate Bill.

Compensation, Gratuities, and Existing Pensions.

29. There will be found in Appendix No. 6 a complete summary of the compensation, gratuities, and pensions which have been paid yearly from 1859 to 1906. I have extracted the information independently from the Journals (House of Representatives), and care has been taken to ensure their correctness—which cannot, however, be guaranteed. They will be of practical interest, as they show the whole of the Government expenditure which can be affected by the introduction of a superannuation scheme. The total of this expenditure (outside the scheme) will tend to diminish, and will be completely extinguished in time. The gratuities will discontinue immediately, the compensation will cease to accrue further, and the outgo for pensions under the existing Civil Service Acts will eventually cease independently of the superannuation scheme. In reference to existing pensions I have the particulars of the 86 present members of the service, who are believed to be the only ones who can become prospective pensioners. I would suggest that the corresponding particulars of the 132 pensioners who were alive in 1906 should be supplied to me. This would be a simple matter, and I could then form a practical estimate of the probable outgo on account of pensions under the existing Civil Service Acts for each future year till they are extinguished. The results would be interesting, and would probably show that the total Government assistance to Civil servants for many years after the introduction of the proposed superannuation scheme will not be so great as might be expected.

Reasons for Superannuation generally and the Scheme recommended in particular.

30. The advantages arising from well-considered superannuation schemes are so evident that many large employers of clerical and other labour have recognised their importance by adopting schemes of the kind in practice, and the tendency of the present day appears to be in the direction of extending the system. It has been pointed out by others that a sentimental consideration for the employee is not the sole motive for expenditure of this kind by corporations and bodies of men engaged in the profitable investment of capital. They are certainly guided by business principles, and realise that well-considered expenditure in this direction is justified by the ultimate results. All employees are compelled to partially provide for their future, thus relieving their employer of the assistance he would be practically forced to extend in necessitous cases. But perhaps the chief advantages to the employer are that the employees as a body are more firmly attached to his service, and he is enabled to exercise a freer hand in retiring aged employees at high salaries and promoting younger men at lower salaries. All interests are best served in the end by placing on the pension-list old servants who are past their work, and replacing them by younger ones who are in their prime.

31. I respectfully submit that the following are sound reasons why the scheme I am advocating should be accepted in its entirety:—

(1.) On the one hand, *it will give full effect to the wishes of the Civil Service.*

(2.) On the other hand, *it will impose the minimum of liability upon the Government to begin with,* which liability will not be erratically subject to sudden large increases in the future. The increase in the cost of superannuation itself will be very gradual, being for many years probably between £1,000 and £2,000 per annum, and when the present outlay for compensation, gratuities, and pensions is taken into account I believe the yearly increase in the total Government assistance to Civil servants will be still further reduced. Such a gradual increase will cause no undue strain to fall on the future increasing resources of the country.

(3.) *The fund will be always sound* if otherwise properly conducted. When the unsatisfactory condition of some large Government funds of this kind in other parts of the world is considered, it will be recognised that this is a matter of the first importance; and I say, without any reservation, that the fund may be subjected at any time to the most exacting actuarial investigation, and, if no departure has been made from the principles I have laid down, it will always pass the test satisfactorily, thereby adding one more to the many large concerns of which the Dominion of New Zealand has cause to be proud.

Conclusion.

32. I have endeavoured to make an exhaustive investigation of this matter, and trust that the result of my labours will be of practical use. If any fault should be found with the length and complicated nature of the report it should be remembered that the subject is a difficult one to deal with in a lucid, and at the same time comprehensive, manner.

MORRIS FOX, ACTUARY.

APPENDIX No. 1.

THE BENEFITS provided in the Civil Service Superannuation Bill, 1906, are as follows:—

I. *On attainment of pension* { Males, at age 60, or after 40 years' service. Females, ,, 50, ,, 30 ,,

(*a*.) A pension of one-sixtieth of yearly salary for each year's service, with a limit of forty-sixtieths (two-thirds) of salary (section 16).

(*b*.) Or the option, in lieu thereof, of a return of total contributions (section 24 (1)).

II. *On retirement before pension-age (on the ground of being medically unfit for further duty).*

(*a*.) At any time, a pension of one-sixtieth of yearly salary for each year's service, limited to forty-sixtieths (section 17).

(*b*.) Or the option, in lieu thereof, of a return of total contributions (section 24 (1))

III. *On retirement before pension-age (on other grounds than medical unfitness).*

(*a*.) On ordinary dismissal or retirement, a return of total contributions (section 18).

(*b*.) On dismissal for the commission of a crime, a return of the balance of total contributions after any defalcations have been made good (section 18)

IV. *At death.*

(*a*.) At death before pension entered upon, leaving no widow (widower) or children, a return of total contributions (section 19 (1)).

(*b*.) At death before pension entered upon, leaving a widow (widower) or children, £18 yearly during widowhood (widowerhood), and 5s. weekly for each child till fourteen years of age (section 19 (1)); with the option of a return of such portion of the total contributions as the Board thinks fit (section 19 (2)).

(*c*.) At death after pension entered upon, a return of the difference between pension received and contributions paid to the fund (section 24 (2)).

V. *Benefits already accrued.*

(*a*.) In addition to benefits I to IV, the Bill provides that (1) moneys already deducted from salaries, under "The Civil Service Reform Act, 1886," or "The Post and Telegraph Classification and Regulation Act, 1890," shall be invested with the Public Trustee and become the property of the contributors on retirement; (2) life-assurance policies and annuities effected under "The Civil Service Insurance Act, 1893," may be kept alive or the surrender value invested with the Public Trustee for the benefit of the holders.

(b.) The absolute or contingent rights to compensation for loss of office when the Act comes into operation (if any) are also preserved until a corresponding amount of pension has been drawn.

NOTE.—The pensions are payable monthly, and are computed on the salary at retirement, unless there has been promotion within five years, when the average salary for the last seven years is taken as the basis.

APPENDIX No. 2.

Classification according to Present Age and Class of Employment.

Age.	(1.) Males.					(2.) Females.					Total.	Age.
	Professional.	Clerical.	Non-clerical (indoor).	Non-clerical (out-door).	Total Males.	Professional.	Clerical.	Non-clerical (indoor).	Non-clerical (out-door).	Total Females.		
15	..	3	6	..	9	..	..	..	..	..	9	15
16	..	38	12	24	74	..	3	2	..	5	79	16
17	2	79	29	30	140	..	8	2	..	10	150	17
18	7	90	28	31	156	..	12	..	..	12	168	18
19	7	152	37	51	247	..	21	1	..	22	269	19
20	8	141	31	45	225	..	22	5	..	27	252	20
21	4	140	29	44	217	..	30	13	..	43	260	21
22	4	112	27	28	171	..	31	14	..	45	216	22
23	7	56	37	17	117	1	33	26	..	60	177	23
24	10	68	40	14	132	1	30	12	..	43	175	24
25	10	55	43	21	129	1	25	16	..	42	171	25
26	9	55	49	23	136	..	27	19	..	46	182	26
27	10	38	50	21	119	..	17	17	..	34	153	27
28	9	31	44	23	107	..	9	18	..	27	134	28
29	12	47	64	20	143	..	20	4	..	24	167	29
30	17	57	59	19	152	..	10	9	..	19	171	30
31	10	58	52	19	139	..	13	9	..	22	161	31
32	8	35	40	24	107	..	12	8	..	20	127	32
33	16	37	36	17	106	..	11	1	..	12	118	33
34	12	35	36	19	102	..	5	6	..	11	113	34
35	13	33	43	16	105	..	6	7	..	13	118	35
36	19	36	38	14	107	..	7	4	..	11	118	36
37	15	38	37	7	97	1	6	4	..	11	108	37
38	19	22	48	12	101	1	2	5	..	8	109	38
39	17	47	28	17	109	..	5	5	..	10	119	39
40	23	27	31	11	92	..	..	7	..	7	99	40
41	24	26	33	5	88	..	..	..	..	..	88	41
42	21	33	28	10	92	..	..	6	..	6	98	42
43	22	28	22	13	85	..	..	3	..	3	88	43
44	28	22	26	9	85	1	..	2	..	3	88	44
45	29	33	23	7	92	1	1	3	..	5	97	45
46	27	20	29	8	84	..	1	..	..	1	85	46
47	21	29	20	8	78	..	..	2	..	2	80	47
48	24	31	24	6	85	..	..	1	..	1	86	48
49	32	30	21	10	93	1	..	4	..	5	98	49
50	21	20	22	12	75	..	..	1	..	1	76	50
51	18	19	23	13	73	..	..	1	..	1	74	51
52	13	20	19	10	62	..	..	1	..	1	63	52
53	18	14	16	10	58	..	..	2	1	3	61	53
54	18	9	10	10	47	..	1	2	..	3	50	54
55	13	11	10	3	37	..	..	..	..	..	37	55
56	15	7	12	6	40	1	..	1	..	2	42	56
57	10	10	7	6	33	..	..	..	..	..	33	57
58	15	8	16	5	44	..	..	1	..	1	45	58
59	18	11	16	5	50	..	..	1	..	1	51	59
60	4	15	7	5	31	..	..	..	..	..	31	60
61	17	6	6	2	31	..	..	..	..	..	31	61
62	13	6	7	7	33	..	..	1	..	1	34	62
63	10	3	12	4	29	..	..	..	..	..	29	63
64	9	8	16	6	39	..	..	..	..	..	39	64
65	14	9	5	4	32	..	..	1	..	1	33	65
66	11	3	5	7	26	..	2	1	..	3	29	66
67	9	3	7	2	21	..	..	1	..	1	22	67
68	11	4	7	4	26	..	..	..	..	..	26	68
69	2	2	4	2	10	..	..	..	..	..	10	69
70	3	1	3	2	9	..	..	..	..	..	9	70
71	3	1	3	..	7	..	..	1	..	1	8	71
72	3	..	1	..	4	..	..	..	..	..	4	72
73	2	2	3	..	7	..	..	..	..	..	7	73
74	1	..	2	..	3	..	..	..	..	..	3	74
75	4	..	..	..	4	..	..	..	..	..	4	75
76	1	3	..	..	4	..	..	..	..	..	4	76
77	..	1	1	..	2	..	..	..	..	..	2	77
78	..	..	2	..	2	..	..	..	..	..	2	78
79	1	..	..	..	1	..	..	..	..	..	1	79
80	1	..	..	..	1	..	..	..	..	..	1	80
81	..	..	..	1	1	..	..	..	..	..	1	81
Totals	774	1,978	1,442	769	4,963	9	370	250	1	630	5,593	Totals

Appendix No. 3.

The Numbers, Salaries, and Contributions arranged according to Length of Service, together with the Average Ages, Salaries, and Contributions.

(1.) *Males.*

Length of Service: Years.	Average Age attained.	Number.	Total Salaries.	Average Salary.	Total Contributions.*	Average Contributions.	Contributions per Cent. of Salary.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			£	£	£	£	Per Cent.
0	23	112	10,408	92·9	623·6	5·6	6·0
1	23	249	21,300	85·5	1,286·4	5·2	6·0
2	25	238	23,261	97·7	1,369·7	5·8	5·9
3	25	277	28,111	101·5	1,766·3	6·4	6·3
4	24	249	23,666	95·0	1,388·3	5·6	5·9
5	27	334	37,915	113·5	2,316·6	6·9	6·1
6	30	478	67,919	142·1	4,409·2	9·2	6·5
7	31	298	41,673	139·8	2,735·1	9·2	6·6
8	34	187	29,761	159·2	2,064·0	11·0	6·9
9	34	150	25,437	169·6	1,750·4	11·7	6·9
10	36	174	30,672	176·3	2,141·7	12·3	7·0
11	33	181	30,929	170·9	2,040·2	11·3	6·6
12	38	159	29,865	187·8	2,140·2	13·5	7·2
13	40	135	26,287	194·7	1,902·6	14·1	7·2
14	38	146	29,049	199·0	2,031·4	13·9	7·0
15	41	116	23,728	204·6	1,770·9	15·3	7·5
16	38	115	22,571	196·3	1,577·1	13·7	7·0
17	39	118	22,874	193·9	1,628·0	13·8	7·1
18	41	62	12,282	198·1	913·3	14·7	7·4
19	41	62	11,937	192·5	906·9	14·6	7·6
20	41	37	7,613	205·8	567·1	15·3	7·5
21	42	78	16,997	217·9	1,304·5	16·7	7·7
22	43	89	18,040	202·7	1,400·7	15·7	7·8
23	45	81	18,788	232·0	1,533·2	18·9	8·2
24	44	106	24,260	228·9	1,944·9	18·4	8·0
25	45	54	11,846	219·4	967·2	17·9	8·2
26	46	52	11,558	222·3	960·3	18·5	8·3
27	50	54	14,058	260·3	1,250·3	23·2	8·9
28	50	129	33,232	257·6	2,942·5	22·8	8·9
29	49	55	14,066	255·7	1,265·9	23·0	9·0
30	51	74	17,510	236·6	1,598·2	21·6	9·1
31	54	49	12,802	261·3	1,206·5	24·6	9·4
32	52	70	19,235	274·8	1,808·1	25·8	9·4
33	52	70	19,313	275·9	1,800·2	25·7	9·3
34	55	41	12,450	303·7	1,202·0	29·3	9·7
35	57	30	11,075	369·2	1,096·4	36·6	9·9
36	59	15	5,010	334·0	496·0	33·1	9·9
37	57	3	995	331·7	99·5	33·2	10·0
38	61	5	1,635	327·0	163·5	32·7	10·0
39	62	8	2,007	250·9	200·7	25·1	10·0
40	59	10	3,815	381·5	381·5	38·2	10·0
41	..	..	..	..	..	..	...
42	59	2	1,125	562·5	112·5	56·3	10·0
43	65	3	985	328·3	98·5	32·8	10·0
44	66	3	1,200	400·0	120·0	40·0	10·0
45	65	3	1,480	493·3	148·0	49·3	10·0
46	64	1	300	300·0	30·0	30·0	10·0
47	..	..	..	..	..	..	...
48	..	..	..	..	..	..	...
49	65	1	700	700·0	70·0	70·0	10·0
Males ..	..	4,963	831,740	167·6	61,530·1	12·4	7·4
Females	..	630	44,385	70·5	2,542·2	4·0	5·7
Totals ..	..	5,593	876,125	156·7	64,072·3	11·5	7·3

* These contributions are on the scale shown in III (18) and III (26), Appendix No. 5.

APPENDIX No. 3—*continued*.

The Numbers, Salaries, and Contributions arranged according to Length of Service, together with the Average Ages, Salaries, and Contributions.

(2.) *Females.*

Length of Service: Years.	Average Age attained.	Number.	Total Salaries.	Average Salary.	Total Contributions.*	Average Contributions.	Contributions per Cent. of Salary.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			£	£	£	£	Per Cent.
0	24	67	3,142	46·9	173·1	2·6	5·5
1	23	115	5,438	47·3	282·8	2·5	5·2
2	26	59	3,148	53·4	174·8	3·0	5·6
3	26	59	3,793	64·3	203·8	3·5	5·4
4	26	52	3,906	75·1	201·6	3·9	5·2
5	27	42	3,391	80·7	179·6	4·3	5·3
6	27	46	4,045	87·9	211·6	4·6	5·2
7	28	32	2,910	90·9	154·2	4·8	5·3
8	33	15	1,197	79·8	75·3	5·0	6·3
9	35	17	1,247	73·4	78·6	4·6	6·3
10	31	11	1,065	96·8	59·3	5·4	5·6
11	32	25	2,297	91·9	134·9	5·4	5·9
12	32	14	1,352	96·6	83·1	5·9	6·2
13	33	8	715	89·4	42·7	5·3	6·0
14	38	13	1,280	98·5	86·6	6·7	6·8
15	37	28	2,795	99·8	185·3	6·6	6·6
16	39	5	538	107·6	38·3	7·7	7·1
17	38	5	486	97·2	35·3	7·1	7·3
18	36	4	320	80·0	20·6	5·2	6·4
19	..	..	..	..	..	..	..
20	66	1	125	125·0	12·5	12·5	10·0
21	..	..	..	..	..	..	..
22	42	2	198	99·0	15·1	7·6	7·6
23	48	3	298	99·3	27·5	9·2	9·2
24	62	1	50	50·0	5·0	5·0	10·0
25	39	1	65	65·0	4·6	4·6	7·1
26	..	..	..	..	..	..	..
27	..	..	..	..	..	..	..
28	..	..	..	..	..	..	..
29	45	1	120	120·0	9·6	9·6	8·0
30	..	..	..	..	..	..	..
31	..	..	..	..	..	..	..
32	60	2	240	120·0	24·0	12·0	10·0
33	53	1	120	120·0	12·0	12·0	10·0
34	71	1	104	104·0	10·4	10·4	10·0
Totals	..	630	44,385	70·5	2,542·2	4·0	5·7

* These contributions are on the scale shown in III (18) and III (26), Appendix No. 5.

Appendix No. 4.

Present Annual Pay and Contributions, with Prospective Pensions to Officers now in Service.

(1.) *Males.*

Age attained.	Number.	Present Annual Pay.	Present Annual Contributions.*	Prospective Pensions at Retiring-age. Based on Back Service.	Based on Future Service.	Total.	Age attained.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		£	£	£	£	£	
81	1	210	21·0	46	..	46	81
80	1	185	18·5	56	..	56	80
79	1	1,000	50·0	467	..	467	79
78	2	187	18·7	33	..	33	78
77	2	278	27·8	82	..	82	77
76	4	1,028	102·8	252	..	252	76
75	4	1,680	168·0	857	..	857	75
74	3	766	76·6	195	..	195	74
73	7	1,942	194·2	949	..	949	73
72	4	870	87·0	323	..	323	72
71	7	1,507	150·7	538	..	538	71
70	9	1,597	159·7	426	..	426	70
69	10	1,961	196·1	719	..	719	69
68	26	6,638	663·8	2,709	..	2,709	68
67	21	4,693	469·3	1,929	..	1,929	67
66	26	7,558	755·8	3,244	..	3,244	66
65	32	9,967	996·7	3,977	..	3,977	65
64	39	8,192	819·2	3,197	..	3,197	64
63	29	6,885	688·5	2,912	..	2,912	63
62	33	8,067	806·7	2,831	..	2,831	62
61	31	8,706	870·6	2,834	..	2,834	61
60	31	7,190	719·0	2,583	120	2,703	60
59	50	12,779	1,277·9	4,731	426	5,157	59
58	44	9,993	999·3	3,404	500	3,904	58
57	33	8,033	803·3	2,918	536	3,454	57
56	40	11,472	1,147·2	4,058	956	5,014	56
55	37	9,706	970·6	4,064	971	5,035	55
54	47	12,625	1,262·5	4,361	1,473	5,834	54
53	58	14,385	1,438·5	5,052	1,918	6,970	53
52	62	14,437	1,443·7	5,350	2,166	7,516	52
51	73	18,234	1,823·4	6,654	3,039	9,693	51
50	75	17,471	1,572·4	5,649	3,203	8,852	50
49	93	27,868	2,508·1	9,175	5,585	14,760	49
48	85	21,405	1,926·5	7,200	4,675	11,875	48
47	78	18,292	1,646·3	6,294	4,337	10,631	47
46	84	21,808	1,962·7	6,699	5,596	12,295	46
45	92	22,543	1,803·4	6,884	6,272	13,156	45
44	85	19,803	1,584·2	5,426	5,964	11,390	44
43	85	20,119	1,609·5	5,568	6,554	12,122	43
42	92	21,468	1,717·4	5,662	7,627	13,289	42
41	88	18,581	1,486·5	4,786	7,139	11,925	41
40	92	20,098	1,406·9	5,500	8,375	13,875	40
39	109	22,950	1,606·5	6,156	10,310	16,466	39
38	101	19,760	1,383·2	5,575	9,558	15,133	38
37	97	18,185	1,273·0	4,611	9,462	14,073	37
36	107	21,337	1,493·6	5,345	11,869	17,214	36
35	105	18,468	1,108·1	4,676	10,944	15,620	35
34	102	18,074	1,084·4	4,149	11,432	15,581	34
33	106	18,382	1,102·9	3,879	12,366	16,245	33
32	107	17,460	1,047·6	3,605	12,522	16,127	32
31	139	23,454	1,407·2	5,072	17,927	22,999	31
30	152	24,721	1,236·1	4,961	20,071	25,032	30
29	143	23,462	1,173·1	4,264	20,294	24,558	29
28	107	15,950	797·5	2,612	14,846	17,458	28
27	119	16,377	818·9	2,438	16,419	18,857	27
26	136	18,447	922·4	2,576	20,092	22,668	26
25	129	15,996	799·8	1,941	19,333	21,274	25
24	132	15,279	764·0	1,577	20,549	22,126	24
23	117	12,750	637·5	967	19,273	20,240	23
22	171	17,032	851·6	735	29,176	29,911	22
21	217	19,261	963·1	..	37,341	37,341	21
20	225	17,500	875·0	..	38,334	38,334	29
19	247	15,226	761·3	..	38,047	38,047	10
18	156	8,515	425·8	..	24,550	24,550	18
17	140	6,977	348·9	..	23,536	23,536	17
16	74	3,659	183·0	..	14,694	14,694	16
15	9	291	14·6	..	1,402	1,402	15
Males ..	4,963	831,740	61,530·1	205,733	541,779	747,512	Males.
Females	630	44,385	2,542·2	6,468	25,833	32,301	Females
Totals	5,593	876,125	64,072·3	212,201	567,612	779,813	Totals.

* These contributions are on the scale shown in III (18) and III (26), Appendix No. 5.

Appendix No. 4—*continued*.

Present Annual Pay and Contributions, with Prospective Pensions to Officers now in Service.

(2.) *Females.*

Age attained.	Number.	Present Annual Pay.	Present Annual Contributions.*	Prospective Pensions at Retiring-age.			Age attained.
				Based on Back Service.	Based on Future Service.	Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		£	£	£	£	£	
71	1	104	10·4	59	..	59	71
67	1	60	6·0	2	..	2	67
66	3	312	31·2	116	..	116	66
65	1	50	5·0	8	..	8	65
62	1	50	5·0	20	..	20	62
59	1	40	4·0	10	..	10	59
58	1	40	4·0	1	..	1	58
56	2	220	22·0	21	..	21	56
54	3	290	29·0	111	..	111	54
53	3	220	22·0	74	..	74	53
52	1	110	11·0	42	..	42	52
51	1	65	6·5	9	..	9	51
50	1	100	9·0	23	2	25	50
49	5	486	43·7	59	16	75	49
48	1	70	6·3	16	4	20	48
47	2	170	15·3	6	11	17	47
46	1	140	12·6	28	12	40	46
45	5	591	47·3	123	59	182	45
44	3	500	40·0	40	59	99	44
43	3	263	21·0	44	36	80	43
42	6	430	34·4	79	67	146	42
40	7	650	45·5	141	128	269	40
39	10	988	69·2	269	215	484	39
38	8	750	52·5	172	179	351	38
37	11	1,073	75·1	236	279	515	37
36	11	900	63·0	210	254	464	36
35	13	1,070	64·2	217	329	546	35
34	11	863	51·8	196	286	482	34
33	12	1,277	76·6	251	458	709	33
32	20	1,615	96·9	340	626	966	32
31	22	1,696	101·8	350	708	1,058	31
30	19	1,535	76·8	230	692	922	30
29	24	2,151	107·6	378	1,048	1,426	29
28	27	1,781	89·1	255	937	1,192	28
27	34	2,335	116·8	269	1,331	1,600	27
26	46	3,289	164·5	399	2,036	2,435	26
25	42	2,821	141·1	320	1,892	2,212	25
24	43	3,042	152·1	340	2,238	2,578	24
23	60	3,734	186·7	394	3,020	3,414	23
22	45	2,758	137·9	273	2,445	2,718	22
21	43	2,414	120·7	208	2,368	2,576	21
20	27	1,234	61·7	50	1,348	1,398	20
19	22	988	49·4	41	1,191	1,232	19
18	12	510	25·5	11	678	689	18
17	10	400	20·0	17	578	595	17
16	5	200	10·0	10	303	313	16
Totals	630	44,385	2,542·2	6,468	25,833	32,301	Females.

* These contributions are on the scale shown in III (18) and III (26), Appendix No. 5.

APPENDIX No. 5.

Summary of Valuations of the Fund outlined in the Bill and of Modifications thereof.

Description of Scheme.		Present Value of: Pensions. For Future Service.	Pensions. For Back Service.	Annuities. To Widows.	Annuities. To Children.	Beturn of Contributions at Death (no Widows and Children).	Return of Balance of Contributions over Pensions received.	Total Liability.	Future Contributions.	Net Liability.	
(1.)		(2) £	(3) £	(4) £	(5) £	(6) £	(7) £	(8) £	(9) £	(10) £	
I (18) Scheme as in the Bill, *with addition of annuities to widows and children of pensioners*	Males	1,160,510	1,023,325	266,717	86,176	11,385	12,901	2,561,014	744,794	1,816,220	Widows' Annuities £10.
	Females	103,511	37,231	..	..	3,738	400	144,880	37,743	107,137	
	Total	1,264,021	1,060,556	266,717	86,176	15,123	13,301	2,705,894	782,537	1,923,357	
II (18) Scheme as in the Bill. Contributions 5%, 6%, 7%, and 10%	Males	1,160,510	1,023,325	166,541	79,714	11,385	12,901	2,454,376	744,794	1,709,582	
	Females	103,511	37,231	..	..	3,738	400	144,880	37,743	107,137	
	Total	1,264,021	1,060,556	166,541	79,714	15,123	13,301	2,599,256	782,537	1,816,719	
III (18) Scheme as in the Bill, *with modified contributions.* (Contributions 5%, 6%, 7% 8%, 9%, and 10%)	Males	1,160,510	1,023,325	166,541	79,714	12,555	12,901	2,455,546	842,337	1,613,209	
	Females	103,511	37,231	..	..	3,887	400	145,029	39,798	105,231	
	Total	1,264,021	1,060,556	166,541	79,714	16,442	13,301	2,600,575	882,135	1,718,440	
IV (18) Scheme as in the Bill, *with half back service only*	Males	1,160,510	563,341	166,541	79,714	11,385	12,901	1,994,392	744,794	1,249,598	
	Females	103,511	18,616	..	..	3,738	400	126,265	37,743	88,522	
	Total	1,264,021	581,957	166,541	79,714	15,123	13,301	2,120,657	782,537	1,338,120	
(26) As in I (18), *with widows' annuities increased to £26* ..	Males	1,160,510	1,023,325	385,258	86,176	11,385	12,901	2,679,555	744,794	1,934,761	Widows' Annuities £26.
	Females	103,511	37,231	..	..	3,738	400	144,880	37,743	107,137	
	Total	1,264,021	1,060,556	385,258	86,176	15,123	13,301	2,824,435	782,537	2,041,898	
II (26) As in II (18), *with widows' annuities increased to £26* ..	Males	1,160,510	1,023,325	240,559	79,714	11,385	12,901	2,528,394	744,794	1,783,600	
	Females	103,511	37,231	..	..	3,738	400	144,880	37,743	107,137	
	Total	1,264,021	1,060,556	240,559	79,714	15,123	13,301	2,673,274	782,537	1,890,737	
III (26) As in III (18), *with widows' annuities increased to £26* ..	Males	1,160,510	1,023,325	240,559	79,714	12,555	12,901	2,529,564	842,337	1,687,227	
	Females	103,511	37,231	..	..	3,887	400	145,029	39,798	105,231	
	Total	1,264,021	1,060,556	240,559	79,714	16,442	13,301	2,674,593	882,135	1,792,458	
IV (26) As in IV (18), *with widows' annuities increased to £26* ..	Males	1,160,510	563,341	240,559	79,714	11,385	12,901	2,068,410	744,794	1,323,616	
	Females	103,511	18,616	..	..	3,738	400	126,265	37,743	88,522	
	Total	1,264,021	581,957	240,559	79,714	15,123	13,301	2,194,675	782,537	1,412,138	

APPENDIX No. 6.

Summary of Compensation, Gratuities, and Pensions, 1859 to 1907.

Financial Year.	Compensation	Gratuities.	Total Compensation and Gratuities.	Pensions under Civil Service Acts.	Financial Year.
		£ s. d.	£ s. d.	£ s. d.	
1859-60	..	..	..	186 10 8	1859-60
1860-61	..	450 0 0	450 0 0	240 0 9	1860-61
1861-62	..	400 0 0	400 0 0	335 2 1	1861-62
1862-63	..	591 5 0	591 5 0	368 2 11	1862-63
1863-64	..	439 19 10	439 19 10	368 4 2	1863-64
1864-65	..	..	..	403 9 7	1864-65
1865-66	..	1,186 16 2	1,186 16 2	2,189 12 10	1865-66
1866-67	..	890 0 0	890 0 0	2,533 6 6	1866-67
1867-68	1,387 15 10	706 7 9	2,094 3 7	2,833 15 11	1867-68
1868-69	7,327 2 8	123 11 8	7,450 14 4	5,237 4 6	1868-69
1869-70	1,034 8 2	974 13 4	2,009 1 6	5,861 9 6	1869-70
1870-71	1,470 16 7	825 0 0	2,295 16 7	6,413 7 6	1870-71
1871-72	2,654 6 3	2,546 16 3	5,201 2 6	7,020 6 11	1871-72
1872-73	1,567 6 6	846 7 2	2,413 13 8	7,388 18 8	1872-73
1873-74	292 7 2	2,706 18 11	2,999 6 1	8,563 3 6	1873-74
1874-75	173 0 0	1,480 0 0	1,653 0 0	8,250 14 2	1874-75
1875-76	13 6 8	3,025 0 0	3,038 6 8	8,053 6 7	1875-76
1876-77	1,159 2 7	1,766 13 4	2,925 15 11	10,559 7 3	1876-77
1877-78	756 0 0	1,175 0 0	1,931 0 0	11,789 13 2	1877-78
1878-79	3,587 7 11	675 0 0	4,262 7 11	13,853 10 1	1878-79
1879-80	648 3 2	2,731 13 4	3,379 16 6	12,767 17 6	1879-80
1880-81	19,064 6 5	2,004 2 2	21,068 8 7	16,993 16 8	1880-81
1881-82	7,797 5 11	2,928 6 8	10,725 12 7	19,626 11 4	1881-82
1882-83	1,343 1 11	1,600 0 0	2,943 1 11	19,438 1 2	1882-83
1883-84	3,548 15 11	2,801 11 4	6,350 7 3	19,478 5 7	1883-84
1884-85	6,415 18 3	2,891 0 10	9,306 19 1	20,465 19 1	1884-85
1885-86	8,154 3 8	4,438 0 2	12,592 3 10	19,142 10 4	1885-86
1886-87	3,897 9 3	3,528 18 4	7,426 7 7	19,774 0 0	1886-87
1887-88	17,229 0 4	1,336 4 10	18,565 5 2	21,781 0 4	1887-88
1888-89	14,910 17 8	2,035 0 0	16,945 17 8	22,722 10 8	1888-89
1889-90	7,114 12 3	1,554 0 0	8,668 12 3	23,219 10 2	1889-90
1890-91	6,306 13 7	3,887 10 0	10,194 3 7	23,385 10 11	1890-91
1891-92	17,564 2 8	3,389 0 3	20,953 2 11	22,174 7 11	1891-92
1892-93	10,180 6 3	5,502 10 0	15,682 16 3	23,251 8 0	1892-93
1893-94	5,981 0 6	2,028 10 0	8,009 10 6	24,969 5 2	1893-94
1894-95	3,577 13 9	3,692 10 0	7,270 3 9	25,263 9 4	1894-95
1895-96	4,726 12 10	1,870 0 0	6,596 12 10	25,682 19 4	1895-96
1896-97	5,527 12 10	3,580 12 6	9,108 5 4	25,717 9 3	1896-97
1897-98	3,527 4 7	1,290 6 0	4,817 10 7	26,144 11 5	1897-98
1898-99	3,786 10 9	1,460 0 0	5,246 10 9	23,901 16 10	1898-99
1899-1900	2,495 6 1	2,780 0 0	5,275 6 1	22,475 0 1	1899-1900
1900-1	5,148 19 6	5,084 0 0	10,232 19 6	21,375 4 9	1900-1
1901-2	7,047 15 8	1,882 0 0	8,929 15 8	20,795 12 8	1901-2
1902-3	10,003 19 3	3,915 0 0	13,918 19 3	23,688 9 5	1902-3
1903-4	20,225 11 0	2,310 0 0	22,535 11 0	22,926 6 5	1903-4
1904-5	18,411 11 9	3,450 0 0	21,861 11 9	23,760 5 11	1904-5
1905-6	6,242 16 5	3,047 10 0	9,290 6 5	23,769 3 5	1905-6
1906-7	7,792 0 2	8,377 10 0	16,169 10 2	25,988 5 7	1906-7
Totals ..	250,092 12 8	106,205 5 10	356,297 18 6	723,128 16 6	Totals.

PUBLIC SERVICE SUPERANNUATION BILL, 1907

(REPORT OF THE ACTUARY ON).

Wellington, 12th November, 1907.

The Right Hon. the Prime Minister, Wellington.

1. IN obedience to your verbal instructions of last Friday I have the honour to report briefly upon the new Public Service Superannuation Bill for the information of the Public Accounts Committee. My former report (dated the 3rd July) on the Bill of last year dealt exhaustively with the matter in most of its bearings, and it will be convenient to refer to and quote from that report.

2. The present Bill differs from the former one in the following important respects:—

(a.) The scale of contributions between ages thirty and fifty is increased from 5, 5, 6, and 7 per cent. to 6, 7, 8, and 9 per cent.

(b.) Provision is made for a yearly subsidy of £20,000.

(c.) A triennial investigation and suitable form of actuarial report thereon are provided for.

(d.) The pensions are based on the average salary of the last three years instead of on the final salary.

(e.) Widows and orphans' annuities are payable in the case of contributors dying after (as well as before) becoming superannuated, and the balance of compensation not received by way of pension is included in the optional capital payment.

(f.) The preliminary period of eleven months during which no pensions were to be payable has been eliminated.

There are also some alterations in details, but none of them have any bearing on the financial aspect.

The general result is that the Bill is very much stronger from an actuarial point of view than the one of last year, while it cannot fail to give general satisfaction to the Public Service.

3. My investigation of the matter in the early part of this year was principally devoted to ascertaining in what way the fund could be most conveniently made actuarially sound with a *minimum* strain on the public purse by way of financial assistance. I considered that would be done most effectively by making the subsidy as small as possible at first, and subject to a comparatively small and practically regular increase so long as it should be necessary. In order to understand fully the conclusions I arrived at it is necessary to read a portion of my former report, particularly paragraphs 12 to 18, inclusive, and 21 to 23, inclusive, having reference to the nature of different liabilities and their proper treatment, and the proposed manner of meeting the liability involved in the Bill.

4. The *minimum* requirements upon which, in my opinion, a Government scheme of pensions to employees may be started on a sound footing are as follows: The scale of pensions and other benefits having been settled,—

(a.) The full rates of contribution necessary at different ages to provide the benefits for the years of future service should be ascertained. (This has been done.)

(b.) The proportion of these rates which shall be contributed in future by the members should be decided by the Government. (This also has been done.)

(c.) The sums so contributed should be used only for the purpose of meeting the portions of the current and future liabilities for which they were intended.

(d.) That part of the contributions intended to meet a portion of the future liability should be accumulated at interest, and not used for any other purpose: these accumulated contributions are afterwards referred to as "the contributed fund."

(e.) The remainder of the current and future liabilities not provided for by the contributions should be discharged year by year, as they emerge, by the Government of the day, *and no portion whatever of "the contributed fund" should be used for that purpose.*

(f.) An actuarial investigation of the fund should be made triennially in order to test the sufficiency of "the contributed fund," and to ascertain the probable extent of the presently emerging liability which will have to be met by the Government during the succeeding three years.

5. The essence of these proposals is that the portion of the liabilities which will be met by the members' contributions shall be dealt with strictly in an actuarial manner, while no actuarial accumulations shall be made on account of the remainder of the liabilities not so provided for, which shall be met, as they actually fall in from year to year, by the Government of the day. I am satisfied that a scheme so managed, while giving the minimum of assistance that can safely be given, and in an automatic manner, will be on a sound financial basis and at all times satisfy actuarial scrutiny.

6. In order that effect might be given to these proposals I submitted draft clauses to the Law Office counsel. One clause, providing for actuarial investigation and report, has been embodied in the Bill—section 32, (2)—but I regret that the even more important clause relating

to the subsidy has not at present been accepted. I recommended, ***and still strongly advocate,*** that section 34, guaranteeing any future deficiency in the fund, should be omitted altogether, and that the following should take the place of the present section 33:—

"There shall be paid annually into the fund by the Colonial Treasurer out of the Consolidated Fund, without further appropriation than this Act, the sum of thirty thousand pounds, and there shall also be paid into the fund such further sums as may be voted by Parliament triennially for the purpose having regard to the report provided for in section 32 hereof."

I do not insist on the sum of £30,000 as being absolutely necessary; £20,000 will do just as well if provision is made as indicated above for the triennial readjustment of the amount should it be found to be insufficient. I inserted £30,000 because, after strict inquiry, I considered that sum would be sufficient, while I am not sure that a smaller sum would. As I have explained in paragraph 23 of my former report, there are insuperable difficulties in the way of estimating exactly the annual sums which will be required at the initiation of the fund, for until it has been started it is impossible to know, for instance, what proportion of the Service will elect to join the scheme, or how many at present under the pension-age are eligible for pensions on the ground of ill health.

7. In endeavouring to give the Committee some conception of how much the country will be committed to in giving full effect to my proposals I must emphasize the fact that the scheme will have two opposite effects. While it will require an initial annual subsidy of £20,000 to £30,000, subject to an annual increase for some years, it will also have the direct effect of diminishing expenditure in other directions. There was paid out of the Consolidated Fund last year £8,000 as gratuities (as will be seen on reference to Appendix No. 6 of my former report): by section 29 of the Bill this outlay will cease immediately. Again, there was paid last year £8,000 as compensation: by section 15 of the Bill this will cease to accrue when the Act comes into operation, and in twenty years or so will have practically ceased. There was also paid last year £26,000 as pensions under "The Civil Service Act, 1866," and in about twenty years this outgo will also have practically ceased. There was thus £42,000 paid from the Consolidated Fund last year as assistance to Civil servants by way of gratuities, compensation, and pensions, and as this outgo will diminish until it practically ceases altogether in about twenty years, while the expenditure under the present Bill will at the same time be increasing, it is evident that the practical consideration of importance is the total annual amount required from the Consolidated Fund for all these purposes taken together. I think it is highly probable that the annual decrease in the present outgo will practically balance the annual increase in the fund's subsidy for the next twenty years. When the fund has been once started data will be available that will enable a more exact estimate to be made, but I fully anticipate the result will be such as not to give the least cause for alarm.

8. In conclusion, I feel that I should fail in my duty if I did not take the liberty of expressing a very strong opinion in favour of the scheme in the Bill, safeguarded in the manner I have explained. I am convinced that the following good results would ensue therefrom:—

(*a*.) Full effect would be given to the natural desires of the Public Service.

(*b*.) The minimum of liability would fall on the Consolidated Fund at first, and any future increase would be so gradual as to cause no undue strain on the future increasing resources of the Dominion.

(*c*.) The fund would be always sound and might be subjected at any time to the most exacting actuarial investigation, being always able to pass the severest test satisfactorily.

MORRIS FOX, ACTUARY.

Comparison of Benefits under the various New Zealand Government Superannuation Schemes.

Benefit.	Police.	Railways.	Teachers.	Civil Service Bill, 1906.	Public Service Superannuation Bill, 1907 (as referred to the Public Accounts Committee).
I. *Pensions on ordinary retirement at or over pension age.*					
(1.) Retiring-age.	Age 60 *and not less than 25 years' service* (optional). Age 65 (compulsory).	Age 60 or *after 40 years' service* or 35 years with permission of Board (optional). No compulsory age of retirement.	Age 60 (optional). Age 65 (compulsory).	Same as Railway.	Same as Railway.
(2.) Amount of pension.	$\frac{1}{60}$th of *final salary* (or average of last 7 years, if raised last 5 years) *for each year of service.*	$\frac{1}{60}$th of *final salary* (or average of last 7 years if raised last 5 years) *for each year of service.*	$\frac{1}{60}$th of *average salary for each year of contribution*, and $\frac{1}{120}$th for each year of back service.	Same as Railway.	$\frac{1}{60}$th of average salary for last three years.
(3.) Pension limits.	$\frac{36}{60}$ths or $\frac{3}{5}$ths of the final salary (as above).	$\frac{40}{60}$ths or $\frac{2}{3}$rds of final salary (as above).	£52 minimum pension. $\frac{40}{60}$ths maximum pension.	Same as Railway.	$\frac{40}{60}$ths or $\frac{2}{3}$rds of average salary as above.
II. *Benefits on retirement before pension age.*					
Medically unfit.	Under 5 years: Full return of contributions. 5 to 15 years: 1 month for each year's service up to 12. If injured on duty: Board may grant pension up to limit. Over 15 years: The usual pension of $\frac{1}{60}$ths.	The usual pension of $\frac{1}{60}$ths.	Very complicated: Difficult to summarise: *v.* section 13 of "The Teachers' Superannuation Act, 1905."	Same as Railway.	The usual pension of $\frac{1}{60}$th, computed as above.

Comparison of Benefits under the various New Zealand Government Superannuation Schemes—*continued*.

Benefit.	Police.	Railways.	Teachers.	Civil Service Bill, 1906.	Public Service Superannuation Bill, 1907 (as referred to the Public Works Committee).
III. *Benefits on death of pensioner.*	Difference between contributions paid and pension received (at discretion of Board).	Difference between contributions paid and pension received (at discretion of Board), together with compensation (1887 Act).	(*a*) If no widow or children: Difference between contributions paid and pension received. (*b*.) If a widow or children: £18 per annum with balance of contributions to widow, or such annuity as they will purchase, and 5s. a week to each child till 14.	Difference between contributions paid and pension received, together with compensation (1866 Act) or accumulations (1886, 1890, or 1893 Acts).	(*a*.) If no widow or children: As in Bill, 1906. (*b*.) If a widow or children: In addition to above £18 per annum to widow and 5s. a week to each child till 14.
IV. *Benefits on death of contributor while in service.*					
(1.) If no widow or children.	No benefit.	Return of contributions, together with compensation (1887 Act).	Return of contributions.	Return of contributions, together with accumulations (1886, 1890, and 1893 Acts).	Same as in Bill, 1906.
(2.) If widow or children.	*If from injuries on duty*: £18 per annum to widow, and 5s. a week to each child till 14. *If not from injuries on duty*: Return of contributions to widow. (Both the above are at the discretion of the Board.)	£18 per annum and 5s. a week, or option of return of contributions together with compensation (1887 Act) at discretion of Board.	£18 per annum and 5s. a week, together with annuity yielded by the balance of contributions, or the return of the balance of contributions (at discretion of Board).	£18 per annum and 5s. a week, or option of return of contributions (at discretion of Board).	Same as in Bill, 1906.

Comparison of Benefits under the various New Zealand Government Superannuation Schemes—*continued.*

Benefit.	Police.	Railways.	Teachers.	Civil Service Bill, 1906.	Public Service Superannuation Bill, 1907 (as referred to the Public Accounts Committee).
V. *Benefits on voluntary withdrawal or dismissal* (not for misconduct) before pension age.	Under 10 years: Nothing. After 10 years, and not more than 25 years: Return of 75 per cent. of contributions. After 25 years, and before pension age: Nothing.	Full return of contributions, together with compensation (1887 Act).	Full return of contributions.	Full return of contributions, together with compensation (1866 Act) and accumulations (1886, 1890, and 1893 Acts).	Full return of contributions and accumulations (1886, 1890, and 1893 Acts.)
VI. *Benefits on dismissal for misconduct.*	Return of not more than 50 per cent. of contributions.	Full return of contributions.	Full return of contributions.	Full return of contributions, together with accumulations (1886, 1890, and 1893 Acts), less defalcations, if any.	Full return of contributions and accumulations (1886, 1890, and 1893 Acts.)

Comparison of Contributions.

Age 30 and under.	5 per cent.	3 per cent.	5 per cent.	5 per cent.	5 per cent.
Ages 31 to 35.	6½ "	4 "	6 "	5 "	6 "
" 36 to 40.	6½ "	5 "	7 "	5 "	7 "
" 41 to 45.	8 "	6 "	8 "	6 "	8 "
" 46 to 50.	8 "	7 "	9 "	7 "	9 "
" over 50.	10 "	10 "	10 "	10 "	10 "

Approximate Cost of Paper.—Preparation, not given; printing (1,600 copies), £20 17s. 6d.

By Authority: John Mackay, Government Printer, Wellington.—1907.

Price, 9d.]