B. Method of computation

1. Population meeting insured status:

The life table used by the Japanese in estimating the cost for welfare pensions shows that per 100,000 males entering gainful employment 4,847 drop out during the first year, leaving 95,153. During the second year 3,983 drop out. Since the rate of withdrawal from the labor force decreases with the length of time spent in the labor force, we assume, partly for convenience,. that 2,153 workers dropped out of employment after 12 months of employment but prior to 19th month. This is 54 percent of the total number withdrawing from covered employment in their second year of employment, leaving 93,000 who have been in the labor force long enough to qualify for survivors' benefits in the event of their death.

2. A certain fraction of those who drop out after their 36th month of employment but 18 months prior to the time when they have been in the labor force long enough to qualify for old-age pensions will fail to qualify. Their number could not be more than 50 percent of those withdrawing from the labor force during the interval indicated. Depending on the length of the qualification period required for old-age pensions, their maximum numbers would be:

a. 10 years qualification: $\frac{14,294}{2} = 7,147$

b. 15 years qualification: $\frac{23,222}{2} = 11,616$

c. 20 years qualification: $\frac{28,269}{2} = 14,137$

3. Those who fail to qualify will be predominantly young males. The probable deaths among them would be approximately:

a. $7,147 \times 0.00799 = 57$

b. $11,616 \times 0.00757 = 88$

c. $14,137 \times 0.00857 = 121$

4. On the other hand, if we assumed that all 93,000 would qualify, total deaths would aggregate 36,178. Thus we would be employing a maximum error of less than 1 percent if no correction were made. We have, therefore, attempted no correction.

5. No data are available on family composition. To estimate the number of qualified survivors as defined in (1) - (4), one would have to infer survivors from available data on dependents per worker, (6) - (11) below.

6. Data obtained from monthly surveys on family consumption in 28 cities show 2.3 dependents for all urban workers. (This figure includes families without dependents and is derived from the average family size of 4.56 in July and 4.75 in August 1947 and 1.38 and 1.43 workers respectively per family.)

Similar data for Tokyo alone, which have been included in the 28 cities, were 2.8 for March, 3.1 for July, and 3.1 for September 1947. The average family size in cities on the basis of the 1930 national census was 4.84. All these averages exclude one-person families.

The publication, Family Expenditures in Tokyo, June 1947, 1/ shows an average family size of 4.76 and an average number of workers of 1.36 per family for all families and of 1.45 for families with one or more workers respectively. (Again, one-worker families are excluded.)

According to a survey made by the Pension Bureau of the Japanese Government in 1946, the following were the average figures for the number of dependents per government worker:

a. "Officials" 1:3.41

b. "Employees" 2:2.08

On the basis of relative numbers as of July 1946, to wit: 843,384 "officials" and 978,689 "employees",

c. The combined rate would be 1:2.69

7. Statistics derived from the monthly sample survey of the labor force for the months of July and August 1947 give the following information with respect to family responsibilities of males and females:

1/ Price and Distribution Branch, Research and Statistics Division, Economic and Scientific Section, SCAP, September 1947, pp. 4,7.

a. Family Status of Persons Age 15 and Over, July-August 1947 1/

Work Status	Family Heads		Not Heads of Families		Total
	Male	Female	Male	Female	
In the labor force	820	75	492	473	1,860
Not in the labor force	82	104	193	1,075	1,454
Total	902	179	685	1,548	3,314
b. Same, Age 15 - 60					
In the labor force	745	69	486	456	1,756
Not in the labor force	39	82	172	934	1,227
Total	784	151	658	1,390	2,983
c. Same, Men Age 15-60, Women Age 15 - 55					
In the labor force	745	64	486	441	1,736
Not in the labor force	39	69	172	874	1,754
Total	784	133	658	1,315	2,890

8. From data given on family size and the number of workers per family, one may infer that each family averages approximately one male worker and a fraction of female worker. On this basis, data given in (6) may be interpreted as representing one male worker and 0.38 to 0.43 female workers per family. This would mean that 28 to 30 percent of the urban labor force are women, which is not far from the proportion of females in the insured labor force.

9. If we assumed that the average female worker supports as many dependents as the average male worker, it would mean that of the average number of 3.18 to 3.32 dependents per family, the male worker is responsible for 2.30 to 2.32 dependents and the female worker for the remaining 0.88 to 1.00 dependents.

10. However, data given under (7) reveal that the family responsibility which rests on the average male worker is much more heavy than that resting on the average female worker. These statistics suggest a ratio of 12:1. On this basis, the number of dependents per male worker would average 2.94 to 3.06 while the average per female employee would be 0.61 to 0.63.

1/ Monthly Sample Survey of the Labor Force; preliminary data. Includes only urban population. Figures in tens of thousands.

11. We may assume, therefore, 3 dependents per male worker and 0.6 per female worker.

12. Since the deceased whose dpendents will be eligible for survivors' benefits will be above the average age of workers at large, probably 45 to 46, it is reasonable to assume that the numbercof their dependents, on the average, would be somewhat higher than 3 for male workers.

13. It will not be correct to assume, of course, that all dependents of deceased insured workers will qualify for survivors' benefits. For ease of computation, however, we may assume an average of 3 survivors to become eligible for benefits and later make certain adjustments to correct the ensuing over-estimate.

14. We may assume further that 2 of these 3 dependents will be the children of the insured and the third his wife or some other adult dependent. The latter assumption again tends to exaggerate the resulting costs in that perhaps no more than 60 percent of the deceased workers in ages 15 to 60 will leave a surviving wife, others would leave adult dependents whose life expectancy, on the average, will be less than that of a surviving wife.

15. Some more data are required to estimate the cost of survivors' benefits. One of these is the average age of the children. We assume that the average age of the youngest child will be 6 and of the next youngest 9.

16. On the basis of (15), the years of dependency for children would be 18, on the average, disregarding deaths occurring among them. Allowing for deaths, the approximate average number of years of orphanhood up to age 16 (when survivors' benefits will stop unless the individual is disabled) will be 9 for the youngest child and 6 for the next, or an aggregate of 15 years during which survivors' benefits will be payable for children of insured workers dying prior to their 60th birthdays.

17. The number of deaths per 100,000 workers entering the covered labor force each year is 36,178 - limited to those who will have sufficient employment so their survivors can qualify - as indicated in (4).

18. On the basis of (16) and (17), the child beneficiaries for survivors' benefits will aggregate 542,670.

19. With respect to survivors' benefits to wives, it is envisaged that benefits to a widow under 55 years of age will be paid only during such period that the surviving widow has a child in her care. It is evident that a substantial fraction of

the widows will not meet that condition and, therefore, will fail to qualify for survivors' benefits prior to their 55th birthdays. No more than half of the deceased would leave surviving wives meeting necessary conditions for survivors' benefits prior to age 55; the average duration of benefits, after allowance is made for deaths and remarriages, is assumed to be 6 years.

20. On the basis of (19) and (17), aggregate years of survivors' benefits payable to widows prior to age 55 would approximate 108,000.

21. Survivors' benefits to widows and other adult dependents after age 55 will involve approximately 30,000 recipients. If we assume that one-third of these have accumulated their own old-age pension rights, it leaves some 20,000. With an average life expectancy of 18 years (18.54 for all females), this would mean 360,000 compensable cases.

22. There will be also the beneficiaries of aged retired persons. The number of these (from cost estimates for old-age pensions) varies from 39,100 to 45,500, depending on years of qualifications for old-age pensions required.

23. The Japanese census of 1930 indicates that in that year 78.9 percent of the males aged 60 to 64 were married. This appears rather high. Possibly the figure refers to both males and females. In part, the high figure is explained by the fact that the age given is in terms of Japanese age.

24. It is assumed, therefore, somewhat more conservatively, that only 60 percent of all male workers dying at age 60 or above will leave a surviving wife. Since some of these wives will not be dependent on their husbands -- having pensions in their own right -- the proportion of those who will be eligible for survivors' benefits is assumed to be 40 percent. It is assumed, of course, that the only survivors left by this group would be wives.

25. The average age of death for males age 60 and over is 72.5. The average age of widows left by this group is assumed, therefore, as 67.

26. On the basis of (24) and (25), the number of eligible widows depending on the number of males qualifying for old-age benefits will be 15,600 - 18,200.

27. With an average life expectancy of 10.7 years, this would mean 166,920 to 194,740 survivors' benefit years.

28. For simplicity we may assume 175,000 as approximating the probable number depending somewhat on the years of insurance qualifications required for old age.

C. Cost estimates

1. On the basis of A(5), B(18), (20), (21), and (28), the cost of survivors' benefits expressed in percent of total payrolls would be:

$$\frac{(542,670 + 108,000 + 360,000 + 175,000)}{1,902,265 + \left(\frac{765,999}{2}\right)} \text{ X (benefit as percent of wages)}$$

or

$$\frac{1,185,670}{2,285,265} \times 0.25 = 13.0\% \text{ (if old-age benefits are to be 50 percent) and}$$
$$10.4\% \text{ (if they are assumed as 40 percent) of wages respectively.}$$

2. We have not considered dependents of female workers. But if the analysis under B(6) is valid, the cost of benefits payable to dependent survivors of insured women, considering the wage differential, could be only 4 or 5 percent of the benefit cost for survivors of insured male workers. Moreover, in basing our estimates on the assumption of 3 dependents eligible for survivors' insurance, we have been, in all probability, on the high side.

3. Furthermore, there are other factors owing to which the cost estimates given under (1) would appear to be too high:

a. No allowance has been made for the higher death rate among orphans in comparison with other children.

b. No adequate allowance was made for widows and other dependents who, upon the death of the wage earner, will be compelled to work instead of relying on the survivors' benefits which may not amount to much more than the family allowances or dependents' benefits.

c. Allowance was not made for the higher mortality of widows or, stating it differently, for the correlation between the longevity of husbands and wives that has been found to exist on the basis of American and European experience.

d. No allowance has been made for dependents in receipt of invalidity benefits.

e. In estimating dependents per worker, one-person families, whose inclusion will add more to the number of workers than to the number of dependents were ignored.

f. Perhaps most important of all is the fact that no allowance has been made for occupational deaths.

4. With respect to (3-f), the work-life table used in calculating welfare pensions indicates that about 5 percent of the deaths among male entrants into the labor force are of work-connected origin.

Statistics of government-managed Health Insurance for the fiscal year ending 31 March 1942 show 7.8 percent, and in the preceding year 7.2 percent, of all deaths entailing payment of funeral benefits were of occupational origin.

In reconciling the divergent figures, it is to be remembered that the health insurance data include only persons actively engaged in insured work until a comparatively short time prior to their death. Our analysis for the purpose of computing the cost of survivors' benefits, on the other hand, includes deaths of insured persons who may have withdrawn from the labor force for some years. Thus, the average number of life years up to 60 per 100,000 workers entering the labor force at the average age of 23 and working at least 18 months out of the 36 months preceding death, or altogether 10 years, is 2,365,920, while the average number of work years for this same group is about 1,710,000. When allowance is made for this discrepancy, the proportion of occupational deaths to the total number of deaths occurring among persons attached to the labor force, as well as those no longer attached but whose dependents would qualify for survivors' benefits, turns out to be 5 percent.

5. On the basis of (3) and (4), the estimates obtained under (1) could be reduced by 20 to 25 percent. But if we assume 5 percent for administrative cost and 5 percent as the benefit cost for survivors of female workers, a reduction by a more 10 to 15 percent would seem in order so as more nearly to approximate the probable cost of survivors' benefits. Accordingly, survivors' benefit cost, expressed in percent of total payroll and depending on the rate of old-age benefits, will be:

a. 11.0 to 11.7 percent, if old-age benefits represent 50 percent of the average wage;

b. 9.1 to 9.4 percent, if we assumed an old-age benefit rate of 40 percent.

6. One final qualification seems called for. It arises from the fact that the work table which we have used as the basis of these estimates is based presumably on the labor force covered under the present welfare pensions. To the extent that this coverage is enlarged to include the Government Pension System, the Mutual Aids, Seamen's Insurance, and employees of

firms employing less than five, the rate at which workers withdraw from the insured labor force will be reduced. This would mean a larger contributory population than the 1,902,265 males and 765,999 females here assumed. Trying quantitatively to account for this factor for our present purpose, the cost of survivors' benefits may finally be estimated at around 10 percent, if old-age benefits are 50 percent of the wage, and about 8 percent, if old-age benefits are 40 percent of wages.

7. Variation in terms of years of qualification required for old-age will not affect these costs significantly so as to warrant alternative estimates.

III. Estimated Cost of Invalidity Benefits

A. Males

1. Average age of entry into labor force: 23.

2. Qualification for receipt of invalidity benefits: The minimum covered employment required to qualify for old-age benefits and at least 18 months of the 36 months immediately preceding current disability.

3. Invalidity benefits will be paid to workers meeting the qualifications specified under (2) where incapacity for work continues for 7 months or longer.

4. To be eligible for invalidity benefits the insured must be incapacitated for any type of gainful work.

5. Invalidity benefits will be paid as long as disability continues until death or age 60. Payments after age 60 may be regarded as old-age pensions.

6. Provisions should be made for rehabilitation services in cases where prospect of rehabilitation appears favorable. As much as 5 percent of the total tax assigned for invalidity benefits may be used for medical and occupational rehabilitation of the invalidity claimants.

7. There should be periodic certification to ascertain the continuation of invalidity.

8. Invalidity benefits will be equivalent to ol-age benefits in amount.

9. Number qualifying for benefits: The estimated number of insured that would be eligible for invalidity benefits in the event of occurrence of the risk depends of course on the years of qualification required.

From estimates of costs for welfare pensions, it is noted that per 100,000 males entering the labor force each year:

a. 68,977 remain in employment for 10 full years;

b. 65,835 remain in employment for 15 full years;

c. 62,457 remain in employment for 20 full years.

From these numbers should be subtracted the number of those that, after being in the labor forces for 10, 15, or 20 years, withdraw from it for a period in excess of 18 months out of the

36 months preceding invalidity. Making allowance for these, approximately the following life years of qualified workers will be exposed to the risk of invalidity:

a. 10 year qualification for old-age: 1,200,000;

b. 15 year qualification for old-age: 800,000;

c. 20 year qualification for old-age: 500,000.

10. Disability rate. In their estimates of invalidity costs the Japanese have used the disability rate under American commercial insurance plans. These disability rates are rates on select lines. The incidence of disability is much lower than among workers in general. On the other hand, life expectancy after disablement is much longer. This rate, therefore, is utterly unsuitable as a guide to the volume of disability under a social insurance program.

11. Duration of invalidity benefits will be governed by the death rate of the disabled and the age at which invalidity pensions are displaced by pensions for the aged. (Under the program here considered this would occur at age 60 for males.)

12. In the light of considerations indicated in (10) we deem experience with the incidence of invalidity under the German social insurance program for wage workers as the more comparable to Japanese conditions. Unfortunately, age-specific invalidity incidence rates under German wage workers' insurance were not available in Japan. There was available, however, the Social Security Bulletin of January 1941, which contains an article on "Prevalence of Disability in the United States with Special Reference to Disability Insurance" by I.S. Falk and B. S. Sanders, applying the invalidity experience under various systems to qualified workers under the Old Age and Survivors' Insurance in the United States.

One of the experiences used is that of German workers. The incidence for the OASI population was 5 per 1,000. Because of 10 to 20 years of qualification required, the age composition of the qualified population may be higher among the Japanese workers if data on age-specific incidence were available. On the basis of this consideration we shall use a higher incidence rate, to wit: 6 per 1,000, but shall not make further adjustments for the longer qualifying period that may be required (such as 15 or even 20 years), which would make the age of eligibles much higher and consequently the incidence greater.

13. Duration of disability data have been based also on German workers' insurance with a cut-off at age 60. For this purpose the Japanese have age-specific death rates for invalided lines starting with the year of invalidity. Their tables indicate the following life expectancy after invalidation (from age at invalidity to age 60):

Age of invalidity	Years of invalid life
20	4.8
25	5.6
30	6.2
35	6.6
40	6.8
45	6.6
50	5.8
55	4.1

Even with a ten-year qualification period, hardly any qualified worker will be under 30, and the concentration would be in the forties; therefore, an average life expectancy up to 60 for invalids qualified to draw benefits may be assumed as 6.5 years. The Japanese assume 7.5, but for the conditions here specified 7.5 is not justified and even 6.5 errs probably on the side of being too high.

14. On the basis of (9), (12), and (13), and the work years of life on the basis of the table prepared by the Japanese in connection with their cost estimates for welfare pensions, the cost of invalidity benefits, expressed in percent of current wages, would be as follows:

a. Benefit averaging 50 percent of wages:

(1) With a ten-year qualification period for old-age benefits,

$$\frac{1,200,000 \times 0.006 \times 6.5}{1,902,265 \times 2} \times 100 = 1.23\%$$

(2) With a 15-year qualification period for old-age benefits,

$$\frac{800,000 \times 0.006 \times 6.5}{1,902,265 \times 2} \times 100 = 0.82\%$$

(3) With a 20-year qualification period for old-age benefits,

$$\frac{500,000 \times 0.006 \times 6.5}{1,902,265 \times 2} \times 100 = 0.51\%$$

b. If the benefit is 40 percent of wages, these costs become:

(1) 0.99%

(2) 0.67%

(3) 0.41%

B. Females.

1. Average age of entry: 20

2. Same as (2) for males.

3. Same as (3) for males.

4. Same as (4) for males.

5. Same as (5) for males, except the shift from invalidity benefits to old-age benefits will occur at age 55.

6. Same as (6) for males.

7. Same as (7) for males.

8. Same as (8) for males.

9. The estimated number of insured that would be eligible for invalidity benefits if the risk is realized depends, of course, on the years of qualification required.

From estimates of costs for welfare pensions it is noted that per 100,000 females entering the labor force each year:

a. 24,489 remain in employment for 10 full years;

b. 15,695 remain in employment for 15 full years; and

c. 10,981 remain in employment for 20 full years.

From these numbers should be subtracted the number of those who, after being in the labor force for the period required, withdraw from it more than 18 months prior to becoming invalided.

From the beginning of the 11th year to the middle of the 36th a certain fraction of those leaving the labor force will thus lose their qualification. Making allowance for these, approximately the following life years of qualified workers will be exposed to the risk of invalidity:

a. With a 10-year qualification for old-age benefits: 275,000.

b. With a 15-year qualification for old-age benefits: 140,000.

c. With a 20-year qualification for old-age benefits: 55,000.

10. Same as for males.

11. Same as for males, except that for females the age range considered ends at 55.

12. For lack of better data, the same rate is used as for males, to wit: 6 per 1,000. The article to which reference was made combines incidence rate for males and females.

13. The duration of invalid life is derived from the same table as that for males. Presumably the table represents life expectancy of invalid workers irrespective of sex. The table indicates the following life expectancy after invalidity (up to age 55):

Age of invalidity	Years of invalid life
20	4.6
25	5.3
30	5.8
35	6.0
40	5.9
45	5.3
50	3.8

Even with a ten-year qualification period only a few qualified workers will be under 30 years of age and the concentration would be in the early forties; we may assume, therefore, an average life expectancy of 5.6 years without further adjustment in the age composition of the qualified group resulting from a possible extension of the years of qualification for old-age benefits.

14. On the basis of (9), (12) and (13) and the work years of life as shown in the table prepared by the Japanese in connection with their cost estimates for welfare pensions, the cost of invalidity insurance, expressed as a percentage of current wages, would be as follows:

a. Benefit averaging 50 percent of wages:

(1) With a 10-year qualification period for old-age benefits,

$$\frac{275,000 \times 0.006 \times 5.6}{765,999 \times 2} \times 100 = 0.60\%$$

(2) With a 15-year qualification period,

$$\frac{140,000 \times 0.006 \times 5.6}{765,999 \times 2} \times 100 = 0.31\%$$

(3) With a 20-year qualification period,

$$\frac{55,000 \times 0.006 \times 5.6}{765,999 \times 2} \times 100 = 0.12\%$$

b. If the benefit is 40 percent of wages, these costs become:

(1) 0.48%

(2) 0.25%

(3) 0.10%

C. Combining the Estimates of Invalidity Benefit Costs for Males and Females

1. As already indicated, no special weighting is necessary to allow for different proportions of males and females entering the insured labor force. This is discussed in connection with old-age benefits.

2. Weighting is necessary, however, with respect to differential wage rates.

a. If we assume a ratio of earnings between male and female of 2:1, we shall have a combined benefit cost as follows:

(1) With a 10-year qualification,

$$\frac{1.23 \times 2 + 0.60}{3} = 1.02\%$$ if the benefit is 50% of the wage, or
0.82% if the benefit is 40%.

(2) With a 15-year qualification,

$$\frac{0.82 \times 2 + 0.31}{3} = 0.65\%$$ if the benefit is 50% of the wage, or
0.52% if the benefit is 40%.

(3) With a 20-year qualification,

$$\frac{0.51 \times 2 + 0.12}{3} = 0.38\%$$ if the benefit is 50% of the wage, or
0.30% if the benefit is 40%.

b. If we assume a wage differential between male and female wages of 2.5:1, we obtain the following percentages:

(1) $$\frac{1.23 \times 2.5 + 0.60}{3.5} = 1.05\%$$ if the benefit is 50% of the wage, or
0.84% if the benefit is 40%.

(2) $$\frac{0.82 \times 2.5 + 0.31}{3.5} = 0.68\%$$ if the benefit is 50% of the wage, or
0.54% if the benefit is 40%.

(3) $$\frac{0.51 \times 2.5 + 0.12}{3.5} = 0.40\%$$ if the benefit is 50% of the wage, or
0.32% if the benefit is 40%.

In the table below these estimates are summarized:

Estimated Cost of Benefits as Percent of Payroll

Qualification period	50% of wages Wage-differential		40% of wages Wage-differential	
	2:1	2.5:1	2:1	2.5:1
10 years	1.02	1.05	0.82	0.84
15 years	0.65	0.68	0.52	0.54
20 years	0.38	0.40	0.30	0.32

5. Cost estimates summarized under (3) refer to costs of benefits. To these must be added the administrative cost and the cost of rehabilitation services assumed to represent some 15 percent of the aggregate expenditures. In the table below the over-all estimated cost of the program is shown:

Qualification Period	Estimated Cost of Benefits as Percent of Payroll			
	50% of wages		40% of wages	
	Wage-differential		Wage-differential	
	2:1	2.5:1	2:1	2.5:1
10 years	1.20	1.25	0.97	1.00
15 years	0.77	0.80	0.61	0.64
20 years	0.45	0.48	0.35	0.38

D. Maturation Rate for Invalidity Benefit Cost

1. We have stated two qualifications for invalidity benefits for non-occupational disability:

a. At least 10 years of employment in covered industry; and

b. At least 18 months of employment in the 36 months immediately preceding the current disability.

We have assumed that the insured worker must satisfy both conditions in order to qualify for benefits.

2. It follows from (1) that under the new invalidity insurance program there will be no beneficiaries in the first ten years.

3. Thereafter, those workers who have remained in covered employment from the time of its inauguration through the tenth year will qualify if they become invalided in the course of the eleventh year.

In the 12th year all those will qualify who, having been insured for 10 years, have not left covered employment more than 18 months prior to invalidity and those having been in covered employment for 11 years who become disabled in the 12th year.

In the 13th year the coverage will include all those who left covered employment more than 18 months prior to invalidity occurring in the 13th year from the time when the program was inaugurated.

4. Applying the principle stated in (2) to the table of working life of 100,000 males entering the labor force each year used by the Japanese in estimating the cost of old-age pensions and used by us in estimating the ultimate cost of old-age and invalidity benefits, the following exposure figures of qualifying workers are obtained:

Year	Number of Qualified Workers	Percent of Ultimate Number
10	997,827	89.2
11	1,027,630	91.9
12	1,052,715	94.1
13	1,073,021	95.9
14	1,088,737	97.3
15	1,100,275	98.4
16	1,108,203	99.1
17	1,113,253	99.5
18	1,116,201	99.8
19	1,117,785	99.9
20	1,118,574	100.0

5. The maturation function of the population exposed to the invalidity risk and qualified to receive benefits if invalided is based on the assumption of 100,000 male workers entering the covered labor force at an average age of 23 and withdrawing at the rates indicated in the work-life table for males prepared by the Japanese. As the period of operation of the program beyond the 10th year continues, there is not only some increase in the number of qualified workers as shown in (3) but also some shift in the age composition toward older ages.

But, as may be seen from (3), the increase in the number of qualified workers is not great, and the effect of the age shift, likewise, is ~~improbable~~ probable to be serious. Therefore, no attempt is made specifically to correct for these two factors.

6. In (3) and (4) we have indicated factors affecting one component of the maturation process, i.e., the increase in the number of persons qualifying and the shift in average age of the group as it attains ultimate exposure.

The second and more important phase of maturation is the accumulation of the number of invalidity benefit claimants resulting from each year's exposure and continued claims of surviving invalidity pensioners until they attain the retirement age.

7. Ideally, of course, one ought to have age-specific rates of invalidity and apply these to the groups meeting each year the qualification requirements indicated in (1). To the number of invalidity cases in each age interval the survival rate for invalided life ought to be applied. Neither available tables nor time permit such a systematic approach. Instead, it is assumed that this second phase of maturation would be approximated if we used as our gradient of maturation the life table of invalidity cases invalided at age 45. This gradient, based on German workers' invalidity insurance, would be as follows:

Years of Invalidity	Number of Invalidity Claimants	Percent of Ultimate Number
0	10,000	15.2
1	16,830	25.6
2	22,396	34.1
3	27,297	41.5
4	31,745	48.3
5	35,842	54.5
6	39,656	60.3
7	43,234	65.8
8	46,610	70.9
9	49,809	75.8
10	52,846	80.4
11	55,726	84.8
12	58,453	88.9
13	61,029	92.8
14	63,458	96.5
15	65,743	100.0

8. The actual maturation rate is a function of the two components indicated in (3, 4) and (6, 7). By taking the percentages indicated in (6) and multiplying by those in (4), and cumulating iteratively, we obtain the approximate maturation rate desired:

Year from Date of Inauguration	Percent of Ultimate Cost
11	13.5
12	23.3
13	31.5
14	38.8
15	45.6
16	52.0
17	57.8
18	63.5
19	69.0
20	74.0
21	78.6
22	83.0
23	87.1
24	91.3
25	95.1
26	98.7
27	99.1
28	99.5
29	99.7
30	99.8
31	99.9
32	100.0
33	100.0

9. The estimates so far have dealt with males only. The actual gradient would have to consider claimants of both sexes. However, since the bulk of invalidity cost consists in compensation going to invalided males and in view of the rough character of our estimates, it seems sufficient to apply the male maturation gradient to both sexes combined.

IV. Estimated Cost of Cash Benefits for Temporary Disability.

A. Males.

1. Days of disability per worker per year, based on government-managed and society-managed Health Insurance experience in Japan for the fiscal year 1941 ending 31 March 1942, (see Appendix Chapter VIII, below):

Management	Covered Workers	Days Lost Total	Days Lost Per 100,000
Government	2,280,510	13,351,903	585,400
Societies	1,622,869	14,654,859	903,000
Combined	3,903,379	28,006,762	717,500

2. These disability figures include disabilities of occupational origin. Report referred under (1) shows for government-managed plan 3,261,319 days of compensable disability; thus, 24.8 percent of all disabilities were of occupational origin.

3. It is assumed that a three-day waiting period will be required for non-occupational disability. The same restriction existed in Japanese Health Insurance operating in the fiscal year 1941. On the basis of (1) and (2), there will be an average of 5.4 days of compensable non-occupational disability.

4. It is assumed further than the benefit amount will be 60 percent of earnings.

5. Cost in terms of percent of wages: $\frac{5.4 \times 0.60}{360} = 0.9$

6. Assuming a 10 percent administrative cost, the aggregate cost would be 1 percent of wages.

7. However, judging from the experience of the fiscal year 1941, 1 percent of wages will be insufficient to finance the proposed program, for several reasons:

a. In the fiscal year 1941 no benefits were paid to workers who became disabled subsequent to losing their jobs. The recommended plan will give these persons protection as long as they meet specific conditions indicative of their continued attachment to the labor force. This modification is certain to add considerably to the cost of disability.

b. In the fiscal year 1941 the maximum benefit period was cut short of 26 weeks if the insured exhausted his eligibility for medical services prior to drawing cash benefits for the whole period. This could happen easily because medical services were

likewise limited to 26 weeks counted from the date of treatment rather than from the start of sick-leave, which did not occur in many cases until later. This limitation will be removed under the proposed plan.

c. The proposals envision as a possibility that temporary disability benefits in some cases may exceed 60 percent of wages if 60 percent falls much below an amount sufficient to assure subsistence of the insured.

8. On the basis of the above-listed considerations, the probable cost of temporary disability cash benefits payable after a three-day waiting period for a maximum period of 26 weeks for each disability to all those meeting the specified qualification period is likely to cost 1.25 percent of wages.

B. Females

1. Days of disability per worker per year (fiscal 1941):

Management	Covered Workers	Days Lost Total	Days Lost Per 100,000
Government	876,545	4,026,297	460,000
Societies	465,000	2,911,713	625,000
Combined	1,341,545	6,938,010	517,000

2. These disabilities include those of occupational origin. Government-managed Health Insurance statistics show that 290,617 of the 4,026,297 compensable days were for occupational disabilities, that is, 7.2 percent of the total.

3. See (3) for males. The comparable average of compensable days of disability for females is 4.8 days.

4. With benefits amounting to 60 percent of wages, the benefit cost in terms of wages would be;

$$\frac{4.8 \times 0.60}{360} = 0.8$$

5. Adding 10 percent for administrative costs raises the percentage to about 0.9 percent.

6. However, for reasons listed in A(7), 0.9 percent would be insufficient to finance the proposed plan. Again, 1.25 percent would seem a more probable and safer estimate.

Since the cost of temporary disability, expressed in percent of wages, is thus estimated to be the same for males and females, the combined cost would be the same, i.e., 1.25 percent of wages.

C. Added Cost of Maternity Benefits.

1. The cost of maternity benefits may be added to the cash benefits payable for temporary disability.

2. Two types of maternity benefits have been paid under existing health insurance plans:

a. Partial compensation for wage loss payable in the event the expectant mother withdraws from employment for an eight-week period, namely from two weeks before delivery until six weeks after.

b. A flat cash allowance per birth payable to working mothers for the layette.

3. Under the new provisions it is proposed to pay cash allowances not only to working mothers but also to wives of insured workers.

4. Estimate of cost of maternity benefits to working women. In the fiscal year 1941 there were 46,570 pregnancies in an insured labor force of 5,244,924.

Management	Covered Workers	Pregnancies	
		Total	Per 100,000
Government	3,157,052	46,691	147.9
Societies	2,087,872	9,879	47.3
Combined	5,244,924	56,570	107.9

5. In that fiscal year the 56,570 maternity benefit recipients claimed 2,650,794 days of benefit or about 47 days of benefit per claimant.

6. In that fiscal year maternity benefits were paid for a maximum period of 10 weeks, 4 weeks before and 6 weeks after the expected date of delivery.

7. On the basis of (5) and (6), benefits actually received were 67 percent of the maximum for which these mothers were eligible. It may be assumed that the actual benefit period may approach the maximum more closely in a normal peace-time year.

8. We may assume the actual days of benefit will constitute 80 percent of the maximum allowed instead of merely 67 percent.

9. The new maximum will be 6 weeks before and 6 weeks after the expected date of delivery, or 84 days.

10. The benefit rate would be 60 percent of wages.

11. Account must be taken of the wage differential between male and female wages. Women constitute about 30 percent of the total number of insured workers.

12. The wage differential between male and female workers is now 2.2 - 2.3 to 1; since it is decreasing, we may assume a differential of 2:1.

13. Relating the 60 percent benefit rate to the average wage base and using the weights indicated in (11) and (12) yields a benefit rate approximating roundly 40 percent (39 percent) of the average wage.

14. On the basis of (4), (8), (9), and (13), the cost of benefits expressed in percent of wages would be:

$$\frac{110\ (84 \times 0.8) \times 0.4}{360 \times 1{,}000} = 0.25\%$$

15. Concerning "birth allowances" or "delivery benefits", we have assumed a benefit amount equivalent to what was paid under Health Insurance in the fiscal year 1941, except that in that year birth allowances were paid only to insured women; under the new program it is proposed that the benefit be paid not only to insured women but also to the wives of insured workers.

16. In the fiscal year 1941 the delivery benefit was ¥20 for each birth if the insured got no maternity services; but with maternity services provided, the cash benefit was reduced to ¥10 per birth.

17. Under the new program it is proposed to provide maternity services to all, so the cash benefit would be at a rate comparable to ¥10.

18. The average daily wage for the 3,157,055 workers under government-managed Health Insurance in the fiscal year 1941 was ¥1.60. The corresponding figures for workers under society-managed plans were 2,087,869 workers and ¥1.93. (See Appendix Chapter VIII, below.)

19. The weighted daily basic wage for the insured was ¥1.73.

20. A ¥10 delivery benefit would have been equivalent to about 5.8 days' wages or 1.6 percent of the average annual wage of the insured.

21. The same relationship may be used for the proposed delivery benefit, 1.6 percent of the average annual wage per birth.

22. Recent data show a birth rate in Japan of 112 per 1,000 urban males in ages 15 through 59.

23. In the fiscal year 1941 males constituted 74,500 out of each 100,000 insured.

24. On the basis of (22), there will be 8,344 delivery benefits payable to wives of every 100,000 insured workers.

25. To (24) must be added delivery benefits paid to working women, approximately 110 per 100,000

26. The births considered under (21), (22), and (23) have been live births. So far, no account has been taken of still births. Recent still-birth statistics for cities show a rate of 52.9 still-births per 1,000 live births. The live birth figure in (24) should be raised to represent all births since delivery benefits are paid not only in case of live births but for still births as well. The total number of births to the wives of insured males thus becomes 8,787 per 100,000 insured.

27. To (26) should be added infants born to working women, approximately 110 per 100,000 insured. 1/ This gives a total of 8,897.

28. Because of biological, age and economic factors, the rate of paternity for working fathers included among the currently insured is apt to be higher than among males in general. To allow for this differential, we may assume a rate of 10,000 per 100,000 insured.

29. On the basis of (21) and (28), the cost of the delivery benefit expressed in percent of wages would be 0.16 percent.

30. For maternity and delivery benefits together the cost would be 0.41 percent. If we assume the administrative cost to be 10 percent of the total disbursement, the over-all cost of these benefits becomes 0.45 percent.

31. The cost estimate in (30) may now be added to the estimate of temporary disability. The combined cost amounts to 1.7 percent of wages. This rate will finance weekly cash benefits for temporary disability and maternity and a one-time delivery benefit. All three benefits would be payable to working mothers and the latter two to the wives of insured workers as well.

1/ There is some duplication here since we have included all births in estimating the birth rate for males.

V. Estimated Cost of Medical Care

1. The Japanese themselves have made several attempts to estimate per capita medical care costs.

One inquiry, said to have been based on ten National Health Insurance Associations in Chiba Prefecture, indicates a total expenditure of ¥300 per person per year on the basis of August 1947 yen values.

Another study, called "Rough Estimate of the Expenses Necessary for Social Security", prepared by the Insurance Bureau, Ministry of Welfare, dated 8 October 1947, provides the following information:

"Annual amount of the medical treatment benefit per capita of the people.

"According to the results of the Synthetic Investigation of the National Conditions of Patients by Japan Medical Association (the four investigations of the patients throughout the country as of Oct. 1, 1936, July 3, 1937, Jan. 25, 1939, and April 10, 1940), the number of days of medical treatment per capita of the people during one month is 0.887 days (exclusively general medical treatments; as the number of patients per million of the population in the four investigations averages 295.8 persons, the result is 0.02958 x 30 = 0.887). Secondly, the average fees and expenses of medical treatment per capita of patients per day being 1.3 point, and the expenses other than that of the medicines being at the rate of 1.92 of that of the medicines, in case the medical expenses per capita per day is converted into that of the medicines, it is 1.3 x (1 + 1.92) = 3.796 points. (In case the unit price of 1 point is estimated as 6 yen, in view of the actual unit price of the insurance medical treatment).

"Therefore,

Monthly amount of medical treatment expenses per capita of the people is

6 yen x 3.796 x 0.887 = 20.20 yen, and

Annual amount of medical treatment expenses per capita of the people is

20.20 yen x 12 = 242.40 yen

As this does not include the expenses of dental treatment, the annual amount of medical treatment expenses is estimated as 300 yen".

The identity of the results would suggest that both estimates come from the same source.

2. The estimate under (1) fails to take into consideration the fact that the volume of medical care demanded increases as the economic barrier for medical costs is removed through the device of insurance. We cannot use it, therefore, in the absence of a good deal of additional information.

3. Health Insurance statistics for the fiscal year 1941 ending 31 March 1942 contain medical care cost data for the insured. Under Health Insurance the insured were provided all medical services for any illness for a maximum period of six months and for one year in case of tuberculosis. Services included general practitioners' care, specialists' services to the extent sought after and available, hospitalization, drugs, nursing, and dental care. The percentage of wages required to pay these benefits may be used as a basis of per capita medical care costs for the population at large.

4. For the government-managed system the cost per insured worker in terms of percent of taxable wages was 2.07.

The corresponding percent for society-managed plans, enjoying the double advantage of additional employer subsidies and facilities and personnel provided by the employer and at his expense, was 1.75.

As indicated, these services were provided to the insured only. Expenditures for dependents as well as their numbers and services received by them are not included.

5. Medical care cost for the insured under (4) includes expenditures for occupational disabilities which are to be paid for entirely by the employer. Information with respect to medical care cost incident to occupational disabilities and diseases is not available. It may be assumed, however, that it is roughly proportionate to the fraction spent for temporary disability of occupational origin out of the total spent for temporary disability.

In the section on temporary disability cost it is indicated that in the fiscal year 1941, 24.8 percent of compensation for temporary disability paid to male workers under the government-managed plan was for occupational disabilities. The corresponding percentage for females was 7.2.

The cost estimates prepared by the Insurance Bureau, Ministry of Welfare, referred to under (1) contain a table showing the rates of work-connected temporary disability and non-work-connected disability respectively. On the basis of these rates, the share of compensable disability of occupational origin constituted the following percentages of all compensable disability.

Year	Percent of occupational disability to all compensable disability
1930	20.8
1931	24.7
1932	20.9
1933	21.0
1934	22.2
1935	20.9
1936	21.0
1937	20.5
1938	n.a.
1939	20.1
1940	20.0

Applying these percentages to medical care costs, we may assume that 20 percent was for the treatment of occupational diseases and injuries and the balance for all other diseases and injuries. 1/

6. To determine the medical costs of non-occupational diseases and injuries for insured workers we should multiply the cost per insured worker by 0.8. By doing so we obtain 1.66 percent of taxable wages as the expenditure for medical services of the workers insured under government-managed Health Insurance.

7. Under the new program it is proposed that the full medical care cost be paid both for the insured and his dependents.

8. There are, broadly speaking, three large classes of dependents:

a. Children under sixteen years of age, representing about sixty percent of dependents.

b. Women in ages sixteen to fifty-five, representing twenty-five percent of dependents.

c. The aged (women aged fifty-five and over and men aged sixty and over), representing ten percent of dependents.

d. The remaining five percent would represent men in ages sixteen to fifty-nine.

1/ For medical care the proportion is likely to be less than for compensable disability since in the latter there is a waiting period for non-occupational disabilities but not for occupational. For medical care there is not this differential, and the proportion going to occupational cases may be somewhat less.

9. Children, constituting about half of all dependents, require on the average less medical care than the average insured worker. Women in ages sixteen to fifty-five who are not in the labor force will require more than average medical care, perhaps twenty-five percent more, if separate provision is made for maternity. Aged people would require about twice as much service as the average worker.

In addition, dependents include a small proportion of incapacitated males in working years whose medical care costs will be much higher, even though their number would be small.

On balance, therefore, the per capita medical care costs of dependents under an insurance program in which dependents are provided complete care is apt to be larger than the per capita costs of medical care for the primary insured.

10. If we assumed the cost of medical care per dependent to be the same as for the insured, the medical care cost of the insured urban worker and his dependents would be, on the average, 5.5 percent of the taxable wage. This figure is based on an average family size of 4.75 and an average of 1.43 workers per family, as indicated in the August 1947 survey of family consumption in 28 cities cited above. In order to allow for the higher cost of dependents' care we may up this figure to roughly 6 percent.

11. Medical care cost given under (10) is exclusive of maternity services. In the cost estimates of cash benefits for temporary disability it was indicated that there are some 10,000 deliveries annually for each 100,000 insured workers.

12. In the fiscal year 1941 Health Insurance paid ¥7 for midwife services. We may raise this 1941 figure to ¥10 so as to include pre- and post-partum examinations, delivery by midwife in normal cases, and delivery by physician where complications arise.

13. On the basis of the averages computed in our disability cost estimates, IV-C (19), (20), and (29) /see above/, this is equivalent to 0.16 percent of the wages of insured workers.

14. Under the new medical care program, duration of medical services will not be limited but will be available for as long a period as required. This means a higher cost than that incurred in the fiscal year which we have used as basis of our medical care cost estimates. However, further correction for this is not deemed necessary in view of the fact that even in the fiscal year 1941 there were certain supplementary allowances that were not regarded as part of the basic wage and consequently were not taxed. In the proposed program it is assumed that the entire income will be taxed without any exclusions.

15. Therefore, the per capita cost for medical services, including maternity services and administrative expenses, should not be more than 6.5 percent.

VI. Estimated Cost of Dependents' Benefits

1. It is assumed that the taxable wage will be the worker's total pay, including family allowances. Primary benefits will be computed on the basis of the wage proper, that is, total take-home pay minus family allowances. Dependents' benefits will be 50 percent of the primary benefit. However, the total of primary and dependents' benefits is not to exceed 80 percent of the total take-home pay. On these premises dependents' benefits are estimated as follows.

2. Dependents' old-age benefit cost at maturity:

a. With primary benefits amounting to 40 percent of the "basic wage" 1/ or 28 percent of the total take-home pay, dependents' benefits would amount to 20 and 14 percent respectively. Although subject to the cut-off mentioned in (1), the number of dependents which would be excluded from receiving old-age benefits would not be significant.

b. The number of old-age pensioners at maturity of the system - using the rate of cost at maturity minus that share of it which is for administration (see I, above) - will be as follows:

(1) Per 100,000 workers entering the labor force each year:

$$\frac{(12 - 0.5) \times 1,334,132}{40} = 384,000$$

(2) Per 100,000 workers in the labor force this would be 28,000.

c. The number of dependents would be:

(1) Per 100,000 entering the labor force, 157,000.

(2) Per 100,000 in the labor force, 11,200.

d. Accordingly, the ultimate cost of dependents' benefits, expressed in percent of earnings, will be:

$$\frac{11,200 \times 14}{100,000} = 1.57\% \text{ of total take-home pay.}$$

1/ "Basic wage" as used here refers to wages proper, not including family allowances in any form.

3. Dependents' invalidity benefit cost at maturity:

a. Same as (2-a).

b. The number of invalidity claimants will be:

(1) Per 100,000 workers entering the labor force:

$$\frac{(1 - 0.1) \times 1,334,132}{40} = 30,000 .$$

(2) Per 100,000 in the labor force: 2,200

c. The number of dependents would be:

(1) Per 100,000 entrants into the labor force: 36,000.

(2) Per 100,000 in the labor force: 2,580.

d. Accordingly, the ultimate cost of dependents' benefits, expressed in percent of earnings, would be:

$$\frac{2,580 \times 14}{100,000} = 0.36\% \text{ of total take-home pay.}$$

4. Dependents' temporary disability cash benefit cost:

a. Primary benefit: 60 percent of basic wage or 42 percent of total take-home pay.

Dependents' benefit: 30 and 21 percent respectively, subject to stated over-all limit. This limitation is estimated to exclude roughly 30 percent of the dependents:

$$\frac{80 - 42}{21} = 1.8$$

b. The number of benefit claimants will be:

(1) Per 100,000 entering the labor force:

$$\frac{(1.25 - 0.12) \times 1,334,132}{60} = 25,100$$

(2) Per 100,000 in the labor force this would mean 1,880.

c. The number of dependents would be:

(1) Per 100,000 entering the labor force: 57,730.

(2) Per 100,000 in the labor force: 4,324.

d. Due to the estimated exclusion of roughly 30 percent of potential claimants, the estimated cost is:

$$\frac{3,000 \times 21}{100,000} = 0.63\% \text{ of total take-home pay.}$$

5. Dependents' unemployment benefit cost:

a. Same as (4-a) except that the estimated portion of dependents excluded from benefits is roughly 25 percent.

b. Instead of attempting to estimate the probable cost of unemployment on the basis of present uncertain and unforseeable circumst nces, the following short-cut method was used: It has been assumed that the average cost of compensable unemployment in Japan over a number of years will not exceed 1.5 percent of earnings. This assumption is based on Vladimir S. Woytinsky's estimates for the United States showing an upper limit of 2 percent for the cost of compensable unemployment in that country. Benefit structures provided in the unemployment compensation laws of the two countries appear to be sufficiently close to permit application of these findings.

On the above assumptions, the number of unemployed claiming primary benefits will be as follows:

(1) Per 100,000 workers entering the labor force each year:

$$\frac{(1.5 - 0.15) \times 1,334,132}{60} = 30,000$$

(2) Per 100,000 in labor force this would mean 2,250.

c. On the same assumptions, the number of dependents would be:

(1) Per 100,000 entering the labor force: 54,000.

(2) Per 100,000 in the labor force: 4,050.

d. Keeping in mind the operation of the cut-off provision and the ensuing limitation, the cost of dependents' benefits will be:

$$\frac{3,000 \times 21}{100,000} = 0.63\% \text{ of total take-home pay.}$$

6. If the assumption were changed to make benefits payable on the same basis on which contributions are levied but leaving all other conditions as before, the percentage cost would be upped approximately as follows:

a. Dependents' old-age benefits: 2.2%

b. Dependents' invalidity benefits: 0.5%

c. Dependents' temporary disability benefits; 0.9%

d. Dependents' unemployment benefits: 0.9%

VII. Estimates of the Initial and Short-Run Cost, Including Transfer Load from Existing Programs

1. In the following it is attempted to gauge the cost of the several benefit schemes of the new program in the first and sixth years of its operation. These years are assumed to be the fiscal years 1948-49 and 1954-55 respectively.

The estimates are based on data contained in the foregoing sections. Where these were insufficient, rough approximations have been made.

The transfer loads from the various social insurance programs now in operation were computed, without regard to discrepancies between the old and the new rates of contribution and benefits, on available maturation data or else approximate length of operation prior to the anticipated date of merger (1 April 1948) and the number of persons covered. Throughout, cost estimates are expressed in percent of earnings.

2. Estimated cost in the fiscal years 1948 and 1954, including transfer loads:

a. Old-age benefits.

Old-age benefits will not be payable under the new scheme in either of the two years, except to persons who have acquired sufficient credits under any one of the existing programs providing comparable benefits.

(1) Transfers from Welfare Pension Insurance. When this program began to operate in 1942 it covered 3.5 million workers. On the basis of wage credits acquired since then, persons insured under this program will qualify for benefits for the first time in 1952. 1/

(a) In 1948, therefore, there will not be any transfer load from this source.

(b) In 1954 the old scheme will have reached the third year of its operation. The transfer load will be:

$$\frac{A3 \times 12 \times 3.5}{7.5 \times 100} = \frac{20.16 \times 12 \times 3.5}{7.5 \times 100} = 1.13\%$$

1/ Minor exceptions, due to the war-time accumulation by many miners of service credits in excess of their actual work years, are disregarded.

(2) Transfers from Seamen's Insurance.
Enacted in 1939, this scheme covered at the outset 100,000 workers. Its old-age benefit claimants will qualify under the new scheme for the first time in 1949.

(a) In 1948, therefore, no additional cost.

(b) In 1954 the transfer load from this system, which would have been six years along in its maturation, will be:

$$\frac{A6 \times 12 \times 0.1}{7.5 \times 100} = \frac{38.26 \times 12 \times 0.1}{7.5 \times 100} = 0.06\%$$

(3) Transfers from Government Pension Insurance.
Enacted in 1923 to take effect immediately, this system has covered during the past ten years an estimated average of 500,000 officials who would qualify under the new scheme. 1/

(a) In 1948 it would have reached its sixteenth year of operation meeting the qualifications of the new system. The transfer loan would be:

$$\frac{A16 \times 12 \times 0.5}{7.5 \times 100} = \frac{93.4 \times 12 \times 0.5}{7.5 \times 100} = 0.64\%$$

(b) In 1954 the load would be:

$$\frac{A22 \times 12 \times 0.5}{7.5 \times 100} = \frac{93.4 \times 12 \times 0.5}{7.5 \times 100} = 0.74\%$$

1/ Although government workers have contributed only a small fraction of the contributions necessary to finance their present pension system, it is assumed that they made a hidden contribution by accepting salaries much below those of white-collar employees in private industry. The term "official" is used here in its technical meaning as distinguished from the mere "employee" not covered by this scheme.

(4) Transfers from Mutual Aid Societies in the Ministries. Nine Ministerial Mutual Aid Societies with an estimated membership of 200,000 government employees were established in 1941. 1/

(a) In 1948 none of their members would qualify under the new scheme.

(b) In 1954 the fourth year of benefit payments would have been reached. Hence the transfer load will be:

$$\frac{A4 \times 12 \times 0.2}{7.5 \times 100} = \frac{27.12 \times 12 \times 0.2}{7.5 \times 100} = 0.06\%$$

(5) Transfers from Mutual Aid Societies in Government Enterprises. Five Mutual Aid Societies established in or around 1908 account for roughly 750,000 government employees.

(a) In 1948 the transfer load on the basis of the new system's eligibility provisions will be:

$$\frac{A31 \times 12 \times 0.75}{7.5 \times 100} = \frac{99.47 \times 12 \times 0.75}{7.5 \times 100} = 1.19\%$$

(b) In 1954 the load will be:

$$\frac{A36 \times 12 \times 0.75}{7.5 \times 100} = \frac{100 \times 12 \times 0.75}{7.5 \times 100} = 1.2\%$$

(6) Summary: transfer load from all existing programs. The total old-age benefit load - not counting dependents' benefits - expressed in percent of earnings will amount to the following percentages:

Program	Fiscal Year 1948	Fiscal Year 1954
Welfare Pension Insurance	0.00	1.13
Seamen's Insurance	0.00	0.06
Government Pension Insurance	0.64	0.74
Ministerial Mutual Aid Societies	0.00	0.06
Government Enterprise Mutual Aid Societies	1.19	1.20
TOTAL	1.83	3.19

1/ The term government "employee" is used in its technical sense to distinguish him from the "official" drawing his pension under the Government Pension scheme.

b. Survivors' benefits.

If the average age at the start of operations is assumed to be forty years, 0.8 percent of those surviving will die in the sixth year. Assuming that all leave survivors drawing benefits up to the maximum of 50 percent of the total pay (P), the cost in 1954 will be:

$$\frac{80P}{100} \times \frac{0.8}{100} = \frac{64P}{100} = 0.64\% \text{ of total wage.}$$

Transfers from existing schemes, by approximation:

(1) From Welfare Pensions Insurance (by approximation):

(a) 1948: first year for 3.5 million insured = 0.3%

(b) 1954: seventh year of benefit payment on basis of short-term qualification and third year on basis of long-term qualification = 1.6%

(2) From Seamen's Insurance. Coverage only 1/35 of that of Welfare Pension Insurance but 1.5 times more mature.

(a) 1948: 0.0%

(b) 1954: 0.07%

(3) Transfer load from Government Pension Insurance:

(a) 1948: Assume mature rate (twenty years of operation) for half a million covered = 1/15 of total coverage under new system = 0.4%

(b) 1954: 0.4%

(4) From Ministerial Mutual Aid. Same maturity as Welfare Pensions but only one-seventh in coverage.

(a) 1948: 0.0%

(b) 1954: 0.2%

(5) From Government Enterprise Mutual Aid Societies:

(a) 1948: Mature system covering one-tenth of the number covered by the new system = 0.6%.

(b) 1954: 0.6%

(6) Summary of survivors' transfer loads from all existing programs.

Program	Percent of Earnings Fiscal Year 1948	1954
Welfare Pension Insurance	0.3	1.6
Seamen's Insurance	0.0	0.07
Government Pension Insurance	0.4	0.4
Ministerial Mutual Aid Societies	0.0	0.2
Government Enterprise Mutual Aid Societies	0.6	0.6
TOTAL	1.3	2.9

c. Invalidity benefits.

Again assuming the average age at the start of operations to be forty years, 0.26 percent will qualify in the sixth year. Assuming maximum dependents' benefits, (P being the total pay) the cost in percent of total wages will be 0.2 percent.

Transfers from existing schemes, by approximation:

(1) From Welfare Pensions Insurance:

(a) 1948: applying the above ratio to the covered population, 0.06.

(b) 1954: 0.4

(2) From Seamen's Insurance:

(a) 1948: numbers negligible, therefore 0.0

(b) 1954: same, 0.0

(3) From Government Pensions Insurance:

(a) 1948: system mature, coverage 1/15 of new coverage, 0.07

(b) 1954: same, 0.07

(4) From Ministerial Mutual Aid Societies:

(a) 1948: first year, 1/17 of new coverage, 0.0

(b) 1954: same, 0.0

(5) From Government Enterprise Mutual Aid Societies:

(a) 1948: mature system, 1/10 of new coverage, 0.1

(b) 1954: same, 0.1

(6) Summary of total transfer load:

Program	Fiscal Year 1948	Fiscal Year 1954
Welfare Pension Insurance	0.06	0.[illegible]
Seamen's Insurance	0.[illegible]	0.0
Government Pension Insurance	0.07	0.07
Ministerial Mutual Aid Societies	0.0	0.0
Government Enterprise Mutual Aid Societies	0.1	0.1
TOTAL	0.2	0.6

d. Temporary disability benefits.

Assuming that the new system will begin to function in 1948, its temporary disability provisions will become operative in the latter half of that year. Its cost will be roughly one-half of the cost at maturity, to wit, 0.85 percent of the total wage.

Transfers from existing schemes:

The cost of the transfer load must be estimated at the same rate as the final cost under the new scheme, but applied to only about four-fifths of the ultimate coverage, as employees now insured under Health Insurance and the government schemes total only slightly above six million. The cost for the first half year is therefore estimated at 0.7 percent of total wages.

e. Medical care (service) benefits.

The new scheme will be operative during the second half of the first year when eligibility requirements have been met. Thus the cost of the first year is assumed at half the final cost, to wit: 3.3 percent of total earnings.

Transfer from existing schemes:

Past and present contributors will be credited with full contributions required under the new scheme. With only about four-fifths of the expected new coverage, the transfer load for the first half year of operations should cost around 2.6 percent of total earnings.

f. Unemployment benefits.

The average rate of unemployment assumed here on the basis of the average ratio of 1.5 percent of earnings is 2,250 per 100,000 in the labor force. With an estimated unemployment in Japan at this time of at least one-half million out of an industrial labor force of eleven million, the rate would be 4,500 per

100,000 or twice the assumed rate. It must be recognized, of course, that many of these may fail to qualify for benefits. We assume that only two-thirds will qualify. In that event, the cost for the latter half of 1948 will amount to [illegible] percent of total earnings.

The transfer load in the first half year is likely to be somewhat smaller [illegible] the benefit payment period [illegible] going to be only five months, with the risk of exhaustion of unemployment ineligible except for the parallel scheme of dependents' allowances. The cost is assumed to be [illegible] percent of earnings.

In 1954 it is assumed that the average cost of 1.0 percent will apply.

g. Calculation of the cost of dependents' benefits in 1948 and 1954.

The estimates of dependents' benefits in these two years were based on the ratio between ordinary and dependents' benefits computed to prevail in [illegible] (P = primary insured's benefit, D = dependents' benefits, T = total benefit), in percent of total earnings, rounded off:

	Fiscal Year 1948	1954
Old-age benefits (P = [illegible])	[illegible]	[illegible]
Old-age benefits transfer	[illegible]	0.6
Survivorship benefits (D = [illegible])	[illegible]	[illegible]
Survivorship benefits transfer	[illegible]	[illegible]
Temporary disability cash benefits (D = [illegible])	[illegible]	[illegible]
Temporary disability cash benefits transfer	[illegible]	[illegible]
Medical care service benefits (D = 0.72T, D = [illegible])	[illegible]	[illegible]
Medical care service benefits transfer	[illegible]	[illegible]
Unemployment benefits (D = [illegible])	[illegible]	[illegible]
Unemployment benefits transfer	[illegible]	[illegible]
TOTAL	[illegible]	7.3

h. Conversion of percentages.

Thus far all percentages given are premised on the assumption that contributions and benefits are computed on the same basis, to wit: total earnings. They are summed up below in columns B. If it is desired to use total earnings for tax purposes only while computing and paying benefits in percent of "basic wages", these figures must be adjusted downward. We have assumed "basic wages" to be 70 percent of total earnings. This does not apply, of course, to medical care (service) benefits, which are not based on previous earnings as are the cash benefits. In this category the percentages were left unchanged on the assumption that services will have to be rendered more cheaply. On this basis adjusted figures are shown below in columns A.

i. Summary of cost estimates for the early years of the new program:

Benefit Scheme	Fiscal Year 1948						Fiscal Year 1954					
	A			B			A			B		
	Primary Insured	Dependents	Total	Primary Insured	Dependents	Total	Primary Insured	Dependents	Total	Primary Insured	Dependents	Total
Old-age benefits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age benefits transfers	1.3	0.2	1.5	1.8	0.4	2.2	2.2	0.5	2.7	3.2	0.6	3.8
Survivors' benefits	-	0.0	0.0	-	0.0	0.0	-	0.4	0.4	-	0.6	0.6
Survivors' benefits transfers	-	0.9	0.9	-	1.3	1.3	-	2.0	2.0	-	2.9	2.9
Invalidity benefits	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.3
Invalidity benefits transfers	0.1	0.1	0.2	0.2	0.1	0.3	0.4	0.1	0.5	0.6	0.1	0.7
Temporary disability (cash) benefits	0.6	0.3	0.9	0.9	0.4	1.3	1.2	0.5	1.7	1.7	0.8	2.5
Temporary disability (cash) benefits transfers	0.5	0.2	0.7	0.7	0.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Medical care (service) benefits	0.9	2.4	3.3	0.9	2.4	3.3	2.0	4.5	6.5	2.0	4.5	6.5
Medical care (service) benefits transfers	0.5	1.3	1.8	0.7	1.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0
Unemployment benefits	0.7	0.4	1.1	1.0	0.6	1.6	1.1	0.6	1.7	1.5	0.9	2.4
Unemployment benefits transfers	0.6	0.3	0.9	0.8	0.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0
GRAND TOTAL	5.2	6.1	11.3	7.0	7.9	14.9	7.0	8.7	15.7	9.2	10.5	19.7

VIII. Some Basic Statistics on Japanese Health Insurance

Since the fiscal year ending 31 March 1942, no information has been compiled on the precise coverage or on the exact volume and costs of services rendered under the auspices of the health insurance schemes of Japan. The possibility of unearthing some overall figures of more recent vintage, that would indicate to a similar extent the services provided to the insured in later years, has not been explored thoroughly; but the indications are that little more may be available than the incomplete and unsatisfactory data already submitted to the Social Security Division by the Insurance Bureau, Ministry of Welfare, entitled, "General Condition of Health Insurance Undertaking in the Fiscal Year of 1946, Government-Managed".

Instead of concentrating on a search for possibly non-existent additional information with respect to the most recent year, it was deemed more profitable to obtain a clear understanding of the statistics on operations during the fiscal year 1941, ending 31 March 1942. Not only were these available in published form, but they were for a year in which the currency was much more stable and in which medical services were obtainable by insured individuals for at least the first six months of each illness <u>without restrictions</u>. A subsequent amendment to the Health Insurance Law required the insured patient himself to pay for the initial medical examination in each illness. Such limitations on medical benefits are known to reduce the effective demand for medical service, thereby decreasing the benefit expenditures of the insurance fund. The experience of the scheme is thus rendered unreliable as a guide to the volume of services and expenditures which would exist if the plan were fully prepaid.

Insurance Benefits

The statutory benefits provided by the two compulsory health insurance schemes for workers in private employment, exclusive of seamen, which existed in the fiscal year ending 31 March 1942 were:

1. <u>Medical care</u> in the home, hospital, and doctor's office, including dental services, nursing care, drugs, and appliances, for occupational as well as non-occupational illnesses and injuries, for a period of six months for each illness. For Health Insurance (Kenko Hoken) subscribers, this care was most often provided as a service benefit if obtained from designated "insurance" doctors and institutions. Free choice of physician, dentist, and pharmacist was allowed, however; and if an unauthorized practitioner was consulted, the insured was required to pay directly but was indemnified in cash according to the standard fee schedule. Employees covered under White-Collar Workers' Health Insurance

(Shokuin Kenko Hoken) were also theoretically entitled to benefits in kind, although they were themselves required to pay for the initial medical examination in each illness. In actual practice, however, they carried no insurance card and as a rule received this benefit in the form of cash indemnities, to the extent of eighty percent of standard costs. Charges for the initial examination usually amounted to approximately twenty percent of the medical care costs in an acute illness.

In addition to the services of physicians, dentists, and hospital staff nurses, the medical care benefit included the services of private duty nurses when authorized. Although this service was theoretically available in the home as well as in the hospital, in actual practice only hospitalized patients with serious illnesses received it. It was available as long as the insured individual was eligible for physicians' services.

When an insured patient was too ill to get to a treatment source without help, he was entitled to the actual costs of necessary transportation. He paid these charges himself and then was reimbursed by the insurance fund.

Finally, the medical care benefit also included the occasional distribution of home remedies. Theoretically only those types of drugs such as antiseptics, antipyretics, antacids, etc., which insured individuals would obtain for themselves anyway without consulting a physician, were dispensed. Distribution was effected through the employer on a per capita basis.

In all other types of illness the subscriber was entitled to care for six months and was qualified the day he joined the scheme. For tuberculosis, on the other hand, the medical care benefit was available for a year, but the insured was qualified only after he had been covered for three months. Dependents' medical care benefits were much more limited and are described fully below.

2. Cash reimbursement for loss of wages due to temporary disability, payable up to a maximum of twenty-six weeks for each period of disability. It amounted to sixty percent of the basic (taxable) wage for Health Insurance subscribers, but only to fifty percent for employees covered by White-Collar Workers' Health Insurance. The waiting period for non-occupational disability was three days for each spell in the case of Health Insurance subscribers and ten days for wage-earners covered by White-Collar Workers' Health Insurance. Salaried employees in the latter scheme were protected by sick-leave provisions, usually up to three months, and did not become eligible for cash temporary disability benefits until all their sick-leave had been used. In such cases there was no waiting period. There was never a waiting period for occupational disability.

Cash disability benefits stopped as soon as the insured exhausted his eligibility period for medical benefits. In tuberculosis cases cash benefits continued for a maximum period of one year if the insured received medical benefits for this entire period. As in the case of medical care, there was a qualification period of three months for tuberculosos cases only.

3. Cash maternity benefit, payable to the insured woman for a maximum period of four weeks before the expected date of confinement and for six weeks after delivery. Like the temporary disability benefit, it amounted to sixty percent of the basic daily wage for Health Insurance subscribers but only to fifty percent for women covered under White-Collar Workers' Health Insurance. It was paid only for periods during which the insured discontinued gainful work and was not on sick-leave, in order to reimburse her partially for loss of earnings. It applied only to insured working women, not to wives or daughters of insured employees. There was a qualification period of six months.

4. Cash childbirth allowance, payable both to insured women and to dependents. It amounted to 20 yen if the insured woman received no benefits in kind, whether or not she spent anything for her delivery. If the service benefit was also received, this allowance was only 10 yen. Dependents were entitled only to 10 yen. The qualification period was three months for insured women, six months for dependents.

5. Delivery (service) benefit, available to the insured woman only. It consisted of obstetrical service in a lying-in hospital or by a midwife in the home, if the purveyor of the service was authorized by the insurer to provide such benefits. In the case of an abnormal or complicated delivery, this service could be performed in a general hospital authorized to treat insurance subscribers, but such institutions were not reimbursed by the insurer for normal deliveries, nor were physicians reimbursed for normal deliveries performed in the home. If the insured woman availed herself of the service benefit, the childbirth allowance was reduced by half, to 10 yen.

6. Cash burial benefit, amounting to one month's basic wages of the deceased worker, payable to his survivor (i. e., nearest of kin). If the insured left no family, the benefit was payable to anyone who assumed the burial expenses; in such cases the benefit amounted to the actual expenditure for the burial, provided it did not exceed one month's basic earnings.

7. Limited medical services to dependents of the insured, available to all those living under the same roof with him or actually dependent on him for subsistence. These benefits were provided whenever the financial status of the health insurance fund

permitted, which was virtually always. They consisted of fifty percent of hospital bed and board costs and fifty percent of the cost of surgical operations and other procedures normally performed in hospitals, provided the charges for such services exceeded 10 yen. They could be provided as service benefits if obtained from authorized practitioners or institutions, or as cash indemnities if from non-designated purveyors. Dependents of White-Collar Workers' Health Insurance subscribers, however, like the insured themselves, typically received only cash indemnification. There was a six-months' qualification period for receipt of this benefit.

8. Welfare services, available to all insured persons and, in some cases, to their dependents. The emphasis was plainly on athletic and recreational activities. Examples of the type of event sponsored by the insurance funds were track and field, baseball, sumo (Japanese wrestling), military arts (fencing), skiing, and hiking. Physical training courses were also given and bathing pavilions maintained at seaside resorts.

Health educational activities consisted of lectures (with the accent on nutritional information), moving pictures, and the distribution of printed matter. Other preventive health services included immunization against communicable diseases, tuberculin testing, and mass chest X-ray surveys.

Insured individuals who had not received medical care benefits for five years, or for ten years, were given cash prizes. In addition, a gesture was made toward the rehabilitation of post-operative patients.

Coverage

During the fiscal year ending 31 March 1942 the number of workers covered on any day by Health Insurance and White-Collar Workers' Health Insurance averaged 5,955,958. 1/ This figure includes those voluntarily insured, but their number was negligible. 2/ These workers were divided into four major groups:

1/ Exclusive of Seamen's Insurance, National Health Insurance, and Mutual Aid societies of government employees.

2/ See top table on page 5 and middle table on page 13 of volume entitled: "1941 Annual Report on the Health Insurance Scheme and an Abridged Report on the White-Collar Workers' Health Insurance Scheme", published March 1944 by the Insurance Bureau, Ministry of Welfare.

1. Government-Managed Health Insurance: Subscription to this scheme was compulsory for all laborers (Koin) and for those white-collar workers (Shokuin) earning less than 1200 yen yearly, who worked in establishments employing five or more individuals, for whom no Health Insurance Society existed, and who were engaged in employment regulated by the Mining Act of 1906, the Factory Act of 1911, or the Health Insurance Act of 1922 as amended. White-collar workers earning more than 1200 yen yearly in covered employment could subscribe voluntarily, as could all employees in covered industries working in establishments with fewer than five individuals and those workers leaving covered employment who had been insured for at least two months.

For all those employees, figures showing coverage on the last day of each month of the fiscal year were available at the Insurance Bureau of the Ministry of Welfare. The annual average derived from these monthly figures is 3,157,055 workers.

2. Health Insurance Societies: Membership in these societies was obligatory for all employees required to subscribe to Health Insurance, if a society existed at their place of employment. Membership was open also to those employees who fulfilled the requirements for voluntary subscription. The average coverage for the year was stated by the Insurance Bureau to be 2,087,869.

3. Government-Managed White Collar Workers' Health Insurance: Participation in this scheme was compulsory for those white-collar workers earning less than 1200 yen annually, who were employed in establishments with ten or more workers engaged in commerce or trade, banking, insurance, money-lending, storage of valuables, real estate and other commission brokerage businesses, bill collection, advertising, employment agencies, theatre and other ticket agencies, travel agencies, and electric utilities. Voluntary subscription was open to white-collar workers in establishments employing fewer than ten individuals in the above occupations, and also to all white-collar workers engaged in education, social welfare, hospitals and clinics, law, public stenography, transcribing, translating, surveying, private investigation, messenger service, wartime patriotic controls carried on by voluntary agencies, private telephone and other communications, radio, hotels, restaurants, theatres and other amusement places, bath-houses, barber shops, and main offices of enterprises, the employees of which were covered by Health Insurance, either compulsorily or voluntarily. (The last group was not obliged to participate in Health Insurance.)

Employees described above were not eligible for coverage by Health Insurance, so there was no overlapping. In addition to the compulsory and voluntary memberships already described, there was an "optional" or "elective" category. This

included white-collar workers in factories, mines, or other establishments, employment in which would have made subscription to Health Insurance compulsory. Such employees could, if they chose, enroll in White-Collar Workers' Health Insurance instead.

Coverage figures for this group also were available at the Insurance Bureau, Ministry of Welfare. The annual average coverage for the fiscal year in question was 476,607.

4. White-Collar Workers' Health Insurance Societies: Membership in these societies was open to white-collar workers either required or eligible to subscribe to the White-Collar Workers' Health Insurance scheme, if a society existed at their place of employment. Conditions under which societies could be formed were similar to those applying to Health Insurance Societies. The figure supplied by the Insurance Bureau, Ministry of Welfare, for annual average coverage was 234,427.

These various coverage figures are recapitulated in Table 1, further subdivided by sex.

Table 1 - Coverage by Sex under Health Insurance and White-Collar Workers' Health Insurance. (Fiscal Year ending 31 March 1942)

Annual Average Coverage	Health Insurance (Laborers and White-Collar Workers)		White-Collar Workers' Health Insurance	
	Government-Managed	Society-Managed	Government-Managed	Society-Managed
Both sexes	3,157,055	2,087,869	476,607	234,427
Male	2,280,510	1,622,869 1/	324,884	148,427 2/
Female	876,545	465,000 1/	151,723	86,000 2/

1/ Not furnished. Estimated from actual coverages on 31 March 1941 and 31 March 1942 (included in the Annual Report) assuming a monthly rate of change similar to that in the corresponding government-managed scheme.

2/ Estimated on the basis of coverage on 31 March 1942.

Source: Insurance Bureau, Ministry of Welfare. Calculated from actual coverages on the last day of each month.

Contributions

Premium rates for Health Insurance during the fiscal year ending 31 March 1942 varied for the different covered groups as follows:

1. Government-Managed Health Insurance: Two rates were used. White-collar workers 1/ and laborers, with the exception of underground miners, contributed four percent of their basic daily wage up to 4 yen per day. For miners the contribution rate was eight percent of the basic wage. Half of the contribution was paid by the employer and half by the employee in the case of all but underground miners; the latter paid only three percent while their employers contributed the remaining five percent. The employer was responsbile for deducting his workers' share from their wages and for transmitting the entire contribution to the insurance fund at monthly intervals.

2. Health Insurance Societies: Contribution rates varied in the different societies, ranging from a minimum of three percent to a maximum of nine percent of basic wages. Each society set its own contribution rate and sometimes it had different rates for white-collar workers and for laborers, even though both were covered under the same law. The minimum total contribution rate, however, had to be three percent, and in no case could employees be required to contribute more than three percent of their basic wage as their share. Employers were required to contribute at least half of the total amount. In the aggregate there were 462 societies representing some 600 separate employers. 2/ In 272 of these the contributions of employers and employees were identical. In the remaining 190 societies employers contributed more than their employees. In 41 societies in which the employer paid more than half of the contribution, the total amount contributed was in excess of six percent of wages. These were the only societies in which employee contributions could have reached the maximum allowable limit of three percent. (For further details see table on page 7 of the Annual Report.) The average contribution rate for the 462 societies approximated 3.95 percent. 3/

1/ White-collar workers covered under Health Insurance represented only those employed in the administrative offices of factories and mines, laborers in which were also enrolled in the scheme. Their number, compared to the laborers, was negligible.

2/ It was stated by officials of the Insurance Bureau, Ministry of Welfare, that on the average there were 1.3 employers per society in the fiscal year under consideration.

3/ Total amount of insurance contributions obtained from Table 3, average taxable earnings from Table 2C, and coverage from Table 1.

3. Government-Managed White-Collar Workers' Health Insurance: The premium rate for this scheme was 2.6 percent of income up to 100 yen per month, with equal contributions by employer and employee.

4. Society-Managed White-Collar Workers' Health Insurance: The contribution rates ranged between two and three percent. There were 108 societies with an average premium rate of 2.26 percent of taxable earnings. Employers paid at least half, and in one case as much as nine-tenths of the premium. (For further details, see table on pages 15 and 16 of the Annual Report.)

For contribution purposes, workers covered by Health Insurance were divided into sixteen daily wage classes, while subscribers to White-CollarWorkers' Health Insurance were divided into ten monthly salary classes, as shown in Table 2A. The proportion of workers in the different earning classes is shown in Table 2B, their average taxable earnings in Table 2C.

Table 2A. Wage or Salary Class Range and Tax Base of Each Class, Health Insurance and White Collar Workers' Health Insurance. (Fiscal Year ending 31 March 1942)

Health Insurance			White-Collar Workers' Health Insurance		
Wage Class	Range ¥/day	Tax Base ¥	Salary Class	Range ¥/month	Tax Base ¥
1	Under .35	.30	1	Under 15	10
2	.35 - .44	.40	2	15 - 24	20
3	.45 - .54	.50	3	25 - 34	30
4	.55 - .64	.60	4	35 - 44	40
5	.65 - .74	.70	5	45 - 54	50
6	.75 - .84	.80	6	55 - 64	60
7	.85 - 1.14	1.00	7	65 - 74	70
8	1.15 - 1.44	1.30	8	75 - 84	80
9	1.45 - 1.74	1.60	9	85 - 94	90
10	1.75 - 2.04	1.90	10	95 & over	100
11	2.05 - 2.34	2.20			
12	2.35 - 2.64	2.50			
13	2.65 - 2.94	2.80			
14	2.95 - 3.24	3.10			
15	3.25 - 3.74	3.50			
16	3.75 & over	4.00			

Source: Insurance Bureau, Ministry of Welfare.

Table 2B. Distribution of Insured Persons by Earnings Classes, Health Insurance and White-Collar Workers' Health Insurance on 31 March 1942. 1/

Health Insurance

Wage Class	Government-Managed			Society-Managed		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	100%	100%	100%	100%	100%	100%
1	0.3	0.1	0.7	0.1	0.1	0.0
2	0.7	0.3	1.9	0.2	0.0	0.6
3	2.0	1.0	4.8	0.5	0.2	1.8
4	3.9	2.3	9.0	2.0	0.7	6.6
5	6.2	3.3	13.7	4.4	1.7	14.2
6	8.2	4.3	18.5	6.4	3.1	18.5
7	17.2	9.7	36.3	14.7	8.9	36.4
8	11.2	11.3	10.7	10.7	9.5	14.9
9	11.0	14.0	3.0	9.1	10.4	4.5
10	10.9	14.8	0.8	9.8	11.9	1.5
11	7.4	10.1	0.3	8.6	10.9	0.6
12	6.6	8.9	0.1	8.1	10.3	0.2
13	4.3	6.0	0.1	6.6	8.4	0.1
14	3.6	4.9	0.0	5.4	6.9	0.0
15	3.1	4.3	0.0	5.5	7.0	0.0
16	3.4	4.7	0.0	7.9	10.0	0.0

White-Collar Workers' Health Insurance

Salary Class	Government-Managed			Society-Managed		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	100%	100%	100%	100%	100%	100%
1	0.6	0.6	0.7	2.6	3.3	1.4
2	8.1	4.9	14.5	4.4	3.0	6.5
3	20.3	10.2	40.9	21.4	8.4	42.7
4	17.7	13.3	26.7	19.8	11.7	33.2
5	14.9	16.8	10.9	14.4	16.6	10.8
6	12.1	16.1	3.8	10.6	15.2	3.1
7	10.0	14.3	1.2	9.1	13.9	1.1
8	8.4	12.1	0.8	8.1	12.7	0.6
9	5.5	8.1	0.4	6.3	10.0	0.4
10	2.4	3.6	0.1	3.3	5.2	0.2

1/ There is no indication that earnings class distribution of insured persons in March 1942 was significantly different from the average for the year.

Source: Tables on pages 22, 38, and 14 of the 1941 Annual Report.

Table 2C. Average Taxable Earnings of Employees
Covered by Health Insurance and
White-Collar Workers' Health Insurance
(Fiscal Year ending 31 March 1942)

Type of Employee	Health Insurance				White-Collar Workers' Health Insurance			
	Government-Managed		Society-Managed		Government-Managed		Society-Managed	
	Average Basic Daily Wage ¥	Average Annual Taxable Wage ¥ 1/	Average Basic Daily Wage ¥	Average Annual Taxable Wage ¥ 1/	Average Basic Monthly Salary ¥	Average Annual Taxable Salary ¥	Average Basic Monthly Salary ¥	Average Annual Taxable Salary ¥
Both Sexes	1.601	576	1.934	696	49.762	597	50.096	601
Male	1.876	675	2.222 2/	800	56.783	681	58.734 3/	705
Female	.885	319	.947 2/	341	34.734	417	35.988 3/	432

1/ Daily wage multiplied by 360.

2/ Mid-point of average taxable daily wage on 31 March 1941 and 31 March 1942.

3/ Approximated from the combined annual average for both sexes, and separate averages for male and female in March 1942.

Source: Insurance Bureau, Ministry of Welfare.

Table 2B shows that only very few workers during the fiscal year could have earned more than 1,440 yen or 1,200 yen, the maximum annual amounts taxable under Health Insurance and White-Collar Workers' Health Insurance, respectively. In the government-managed Health Insurance scheme, only 3.4 percent of subscribers in March 1942 were in the sixteenth wage class with an annual earnings rate of 1,350 yen or more. In the corresponding society-managed plans, 7.9 percent were in this class. In the case of White-Collar Workers' Health Insurance, only 2.4 percent were in the highest salary class in the government-managed scheme and 3.3 percent in the comparable society-managed plans.

Both Tables 2B and 2C indicate the higher earnings of society members as compared with subscribers to the government-managed schemes. The average annual wage for male members of Health Insurance Societies was about 19 percent greater than that of subscribers to the corresponding government-managed scheme. For insured females it was only 7 percent higher. But since males predominated among the insured, especially in the societies, the average taxable earnings per society member was 21 percent in excess of the average for those insured under the government-managed program. This means, of course, that with an identical tax rate there was a substantially higher premium income per insured for the societies. This advantage of society-managed plans was further accentuated by subsidies provided by employers in terms of medical personnel and facilities, and of paying for administrative costs of the societies.

For White-Collar Workers' Health Insurance, the difference in earnings between society members and subscribers to the government-managed scheme was negligible.

Income

Income of the different health insurance schemes is given in Table 3. The figures for the two government-managed schemes and for income from premiums and government subsidy in society-managed Health Insurance are given in the Annual Report. All other figures relative to the two society-managed schemes were furnished separately by officials of the Insurance Bureau, Ministry of Welfare.

Table 3. Income of Health Insurance and White-Collar Workers' Health Insurance (Fiscal Year ending 31 March 1942)

Type of Income	Health Insurance		White-Collar Workers' Health Insurance	
	Government-Managed ¥	Society-Managed 1/ ¥	Government-Managed ¥	Society-Managed 1/ ¥
Total Income	77,363,681	71,961,235	7,348,043	4,277,313
Income exclusive of subsidy	75,317,011	67,785,499	6,871,433	4,042,915
Insurance contributions	72,769,164	57,300,218	6,748,244	3,182,332
Interest	1,918,479	814,589	117,638	36,447
Transfer of funds from previous year	481,736	6,517,390	3/	690,887
Other receipts	147,632	3,153,302 2/	5,551	133,249 4/
Government subsidy	1,846,670	4,175,736	476,610	234,398

1/ Not in Annual Report, but furnished separately by Insurance Bureau, Ministry of Welfare.

2/ This was furnished as three separate figures:

a. 1,610,089 yen representing gifts, as well as proceeds from the partition of existing societies into two or more separate societies. The latter was usually nothing more than a transfer of funds.

b. 1,515,310 yen representing income from the operation of society-owned hospitals, in addition to proceeds from the sale of waste paper, broken office furniture, etc.

c. 27,903 yen collected from employers under the provisions of Article 59 of the Health Insurance Law. When a disabled salaried employee is entitled to sick-leave and it is not forthcoming, the insurer is permitted to award him temporary disability benefits and then to demand reimbursement from the responsible employer. The employer must not only pay within a stipulated time but may be fined for delinquency.

The average aggregate income per subscriber 1/ to government-managed Health Insurance was 24.42 yen for the year. For the corresponding societies the average was 34.42 yen, which is 41 percent greater. For government-managed White-Collar Workers Health Insurance, the per capita aggregate income was 15.40 yen, while for the comparable societies it was 18.27 yen, an excess of 19 percent.

Disbursements

The expenditures of the different Health Insurance schemes during the fiscal year ending 31 March 1942 are summarized in Table 4.

3/ This scheme put all of its surpluses into reserves.

4/ See footnote "2". The comparable figures are:

a. 101,245 yen.

b. 29,305 yen.

c. 2,699 yen.

Source: Bottom table on page 12, table on page 20, and paragraphs 2 and 3, page 7 of "1941 Annual Report on the Health Insurance Scheme and an Abridged Report on the White-Collar Workers' Health Insurance Scheme," published March 1944 by the Insurance Bureau, Ministry of Welfare.

1/ Obtained by dividing the total income shown in Table 3 by the appropriate average annual coverage given in Table 1.

Table 4. Disbursement of Health Insurance and White-Collar Workers' Health Insurance Funds (Fiscal Year ending 31 March 1942)

Type of Disbursement	Health Insurance		White-Collar Workers' Health Insurance	
	Government-Managed ¥	Society-Managed ¥ 1/	Government-Managed ¥	Society-Managed ¥ 1/
Total disbursement	77,163,681	71,961,235	7,348,043	4,277,313
Operating expenses (exclusive of transfers of surpluses)	65,930,955	56,694,799	3,795,011	2,313,580
Statutory insurance benefits	59,687,026	48,860,440	2,767,804	1,667,504
Welfare services	1,757,459	3,049,548	314,511	281,775
Office expenses	2,920,581	1,804,676	391,011	123,929
Employees' salaries	1,321,174	6/	166,847	6/
Employees' family allowances 2/	78,311	6/	8/	6/
Employees' pension contributions 3/	39,668	6/	8/	6/
Miscellaneous expenditures	126,836 4/	2,980,135 7/	154,838 4/	240,372 10/
Transfer of surplus Income	11,232,726	16,266,436	3,553,032	1,963,733
To reserve fund	10,203,461	7,287,405	3,553,032	1,115,581
To operating fund for next year	626,916	8,979,031	9/	848,152
To National Treasury	402,349 5/	-	-	-

1/ Information furnished separately by officials of Insurance Bureau, Ministry of Welfare.

2/ At the rate of 2 yen per dependent per month. Japanese wage structure includes a series of special allowances in addition to the basic wage. The most important allowance is the one for dependents.

3/ Prior to 1942 the Ministry of Welfare had no Mutual Aid Society for its employees.

4/ Rebates to subscribers for overpayments.

5/ For operation of the Chiba tuberculosis sanatorium.

6/ Most society employees' salaries are paid by the employer. The rest are probably included in the item for office expenses.

7/ Furnished as two separate items:

a. 2,804,581 yen includes interest on loans as well as payment of outstanding obligations, including insurance benefits, of previous years.

b. 175,554 yen represents expenditures for maintenance, including employees' salaries, of society-owned hospitals, and clinics.

8/ Probably included in item for employees' salaries because of small number of employees. Health Insurance and White-Collar Workers' Health Insurance were considered as separate entities and supervised by separate officials who prepared reports without much collaboration for the development of standard procedures.

9/ The White-Collar Workers' Health Insurance scheme in its three years of existence, fiscal 1940, 1941, and 1942, never transferred any surpluses to the fund for the next year's operations. All its excess income went into reserves. The present Health Insurance scheme, in which the former plan is now incorporated, follows the same procedure.

10/ See footnote 7. The corresponding figures are:

a. 237,667 yen.

b. 2,705 yen.

Source: Bottom table on page 12 and table on page 20 of "1941 Annual Report on the Health Insurance Scheme and an Abridged Report on the White-Collar Workers' Health Insurance Scheme," published March 1944 by the Insurance Bureau, Ministry of Welfare.

The expenditures shown in Table 4 for benefits and administrative costs averaged 20.84 yen per person insured under the government-managed Health Insurance scheme and 27.20 yen for the corresponding society members. In the case of White-Collar Workers' Health Insurance these amounts were 5.80 yen and 7.43 yen respectively.

In the government-managed Health Insurance scheme, statutory benefits and welfare services accounted for 93 percent of total operating expenses. In the Health Insurance societies 91 percent was spent for these purposes. In the case of White-Collar Workers' Health Insurance these proportions were 81 percent and 84 percent respectively.

Statutory benefits provided by insurance societies were often supplemented or underwritten by the employers. Provision by them of hospitals and clinics staffed by medical and auxiliary personnel made the purchase of medical care by the societies relatively inexpensive. Payment of the remaining 40 percent of taxable earnings when an employee was receiving temporary disability benefits for a work-connected injury or illness was another favorite form of subsidy. Retention of administrative officials of a society on the company payroll was a common method of reducing the society's administrative costs.

Frequency, Volume, and Cost of Benefits

The 1941 Annual Report gives some basic data on the frequency, volume, and costs of different types of benefits provided under the auspices of the different Health Insurance schemes during the fiscal year ending 31 March 1942. The data furnished on frequency and volume of benefits for the different plans are given in Table 5 in such detail as is available. The details vary for the different schemes.

Tables 6A and 6B give per capita rates of frequency and volume of benefits shown in Table 5. Table 6A shows both the frequency and volume of benefits per insured person, while 6B shows the volume of benefits per case. Coverages shown in Table 1 were used for computing these per capita figures.

Table 7 gives the expenditures for various benefits, paralleling the categories shown in Table 5. Costs shown in this table are limited to those for statutory benefits, exclusive of administrative expenses.

Tables 8A, 8B and 8C give an analysis of benefit costs per insured, per case, and per unit of service respectively, in such detail as was available for the different insurance schemes.

Table 9 shows the expenditures for various statutory benefits expressed as percent of average annual taxable earnings of each of the insured groups. The average basic earnings listed in Table 2C were used for calculating these percentages.

Table 5. Frequency and Volume of Benefits Provided by the Health Insurance and White-Collar Wor

Type of Benefit	Health Insurance								
	Occupational & non-occupational causes			Government-managed Occupational illnesses & injuries			Non-occupational illnesses & injuries		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Medical Benefit									
Cases	7,275,637	5,421,549	1,854,088	1,007,638	903,609	104,029	6,267,999	4,517,940	1,750,059
Days of Service 1/	76,302,335	56,123,361	20,178,974	8,845,262	7,843,457	1,001,805	67,457,073	48,279,904	19,177,169
Medical Service									
Cases	7,208,461	5,363,906	1,844,555	973,907	872,520	101,387	6,234,554	4,491,386	1,743,168
Days of Service 1/	75,513,225	55,437,864	20,075,361	8,422,533	7,451,606	970,927	67,090,692	47,986,258	19,104,434
Cash Indemnity									
Cases	67,176	57,643	9,533	33,731	31,089	2,642	33,445	26,554	6,891
Days of Service 1/	789,110	685,497	103,613	422,729	391,851	30,878	366,381	293,646	72,735
Temporary Disability Benefit									
Cases	667,797	540,581	127,216	187,579	174,169	13,410	480,218	366,412	113,806
Compensable Days	17,378,200	13,351,903	4,026,297	3,551,936	3,261,319	290,617	13,826,264	10,090,584	3,735,680
Maternity Benefit 2/									
Cases	50,145	-	50,145	-	-	-	50,145	-	50,145
Compensable Days	2,118,771	-	2,118,771	-	-	-	2,118,771	-	2,118,771
Cash Childbirth Allowance									
Cases	46,691	-	46,691	-	-	-	46,691	-	46,691
Delivery Service Benefit									
Cases	16,279	-	16,279	-	-	-	16,279	-	16,279
Burial Benefit									
Cases	22,482	16,950	5,532	1,398	1,301	97	21,084	15,649	5,435
Dependents' Medical Benefit									
Cases	9,703	-	-	-	-	-	9,703	-	-
Days of Service 1/	182,697	-	-	-	-	-	182,697	-	-
Hospital Bed and Board									
Cases	9,703	-	-	-	-	-	9,703	-	-
Days of Service 1/	182,697	-	-	-	-	-	182,697	-	-
Operations Exceeding 10 Yen									
Cases	4,128	-	-	-	-	-	4,128	-	-

ce and White-Collar Workers' Health Insurance Schemes for the Fiscal Year Ending 31 March 1942.

						White-Collar Workers' Health Insurance				
		Society-managed			Government-managed		Society-managed			
l illnesses & injuries		Occupational & non-occupational causes			Occupational & non-occupational causes		Occupational & non-occupational causes			
Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
4,517,940	1,750,059	5,907,652	4,474,739	1,432,913	396,653	283,409	113,244	188,576	110,673	77,903
8,279,904	19,177,169	57,814,083	45,815,580	11,998,233	4,329,152	3,102,779	1,226,373	2,526,081	1,530,089	995,992
4,491,386	1,743,168	5,883,131	4,453,486	1,429,645	-	-	-	-	-	-
7,986,258	19,104,434	57,353,368	45,416,951	11,936,417	-	-	-	-	-	-
26,554	6,891	24,521	21,253	3,268	-	-	-	-	-	-
293,646	72,735	460,715	398,899	61,816	-	-	-	-	-	-
366,412	113,806	802,249	664,569	137,680	4,733	2,802	1,931	3,705	1,655	2,050
0,090,584	3,735,680	17,566,572	14,654,859	2,911,713	242,789	147,732	95,057	216,849	91,089	125,760
-	50,145	12,665	-	12,665	358	-	358	154	-	154
-	2,118,771	532,023	-	532,023	17,143	-	17,143	7,551	-	7,551
-	46,691	9,879	-	9,879	576	-	576	303	-	303
-	16,279	304	-	304	1	-	1	-	-	-
15,649	5,435	15,129	12,462	2,667	2,351	1,751	600	1,488	-	-
-	-	23,461	-	-	1,423	-	-	1,534	-	-
-	-	438,967	-	-	29,019	-	-	31,547	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

1/ Days of Service are units peculiar to Japanese medical practice. A day in the hospital is counted as a day of service. An initial visit to a physician is also counted as a day of service. Subsequent visits to the physician, however, are not counted unless medicine is given. When medicine is given, the number of days of service is in terms of the number of days' supply of the drug. If it is given for a period of seven days, seven days of service are counted, even though during the seven days the patient may not visit the physician again. If, on the same day, a patient visits two or more physicians, each of whom sees him for the first time with respect to his complaint, each visit is counted as a day of service.

2/ For purposes of the maternity benefit, maternity leave, if interrupted at any time during the benefit period and later resumed, is counted as a new case. Thus a woman may be counted more than once as a maternity beneficiary in the course of one pregnancy if she interrupts her benefit by going back to work and later resumes it.

Source: Tables on pages 17, 42, and 74, "1941 Annual Report on the Health Insurance Scheme and an Abridged Report on the White-Collar Workers' Health Insurance Scheme," published March 1944 by Insurance Bureau, Ministry of Welfare.

Table 6A. Frequency and Volume of Benefits Per Person (Exclusive of Dependents) insured under Heal

Type of Benefit	Health Insurance								
	Government-managed								
	Occupational & non-occupational causes			Occupational illnesses & injuries			Non-occupational illnesses & inju		
	Both sexes	Male	Female	Both Sexes	Male	Female	Both sexes	Male	Fema
Medical Benefit									
Cases	2.30	2.38	2.12	.32	.40	.12	1.99	1.98	2.0
"Days of Service"	24.17	24.61	23.02	2.80	3.44	1.14	21.37	21.17	21.8
Medical Service									
Cases	2.28	2.35	2.10	.31	.38	.12	1.97	1.97	1.9
"Days of Service"	23.92	24.31	22.90	2.67	3.27	1.11	21.25	21.04	21.8
Cash Indemnity									
Cases	.02	.03	.01	.01	.01	.00	.01	.01	.0
"Days of Service"	.25	.30	.12	.13	.17	.04	.12	.13	.0
Temporary Disability Benefit									
Cases	.21	.24	.15	.06	.08	.02	.15	.16	.1
Compensable Days	5.50	5.85	4.59	1.13	1.43	.33	4.38	4.42	4.2
Maternity Benefit									
Cases	.02	-	.06	-	-	-	.02	-	.0
Compensable Days	.67	-	2.42	-	-	-	.67	-	2.4
Cash Childbirth Allowance									
Cases	.02	-	.05	-	-	-	.02	-	.0
Delivery Service Benefit									
Cases	.01	-	.02	-	-	-	.01	-	.0
Burial Benefit									
Cases	.01	.01	.01	.000	.00	.00	.01	.01	.0
Dependents' Medical Benefit									
Cases	.00	-	-	-	-	-	.00	-	-
"Days of Service"	.06	-	-	-	-	-	.06	-	-
Hospital Bed and Board									
Cases	.00	-	-	-	-	-	.00	-	-
"Days of Service"	.06	-	-	-	-	-	.06	-	-
Operations Exceeding 10 Yen									
Cases	.00	-	-	-	-	-	.00	-	-

Source: Tables 1 and 5 of this study.

s) insured under Health Insurance and White-Collar Workers' Health Insurance Schemes for the Fiscal Year Ending 31 March 1942.

	Health Insurance					White-Collar Workers' Health Insurance					
			Society-managed			Government-managed		Society-managed			
	onal illnesses & injuries		Occupational & non-occupational causes			Occupational & non-occupational causes		Occupational & non-occupational causes			
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	1.98	2.00	2.83	2.76	3.08	.83	.87	.75	.84	.75	.91
	21.17	21.88	27.69	28.23	25.80	9.08	9.55	8.08	11.26	10.31	11.58
	1.97	1.99	2.82	2.74	3.07	-	-	-	-	-	-
	21.04	21.80	27.47	27.99	25.67	-	-	-	-	-	-
	.01	.01	.01	.01	.01	-	-	-	-	-	-
	.13	.08	.22	.25	.13	-	-	-	-	-	-
	.16	.13	.38	.41	.30	.01	.01	.01	.02	.01	.02
	4.42	4.26	8.41	9.03	6.26	.51	.45	.63	.97	.61	1.46
	-	.06	.01	-	.03	.00	-	.00	.00	-	.00
	-	2.42	.25	-	1.14	.04	-	.11	.03	-	.09
	-	.05	.00	-	.02	.00	-	.00	.00	-	.00
	-	.02	.00	-	.00	-	-	-	-	-	-
	.01	.01	.01	.01	.01	.00	.01	.00	.01	-	-
	-	-	.01	-	-	.00	-	-	.01	-	-
	-	-	.21	-	-	.06	-	-	.14	-	-
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-

Table 6B. Volume of Benefits Per Case under the Health Insurance and White-Collar Workers' Health Ins

Type of Benefit	Occupational & non-occupational causes			Government-managed Health Insurance: Occupational illnesses & injuries			Non-occupational illnesses & injurie		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Medical Benefit	10.60	10.39	10.88	8.78	8.68	9.63	10.76	10.69	10.96
Medical Service ("days of service")	10.48	10.34	10.88	8.65	8.54	9.58	10.76	10.68	10.96
Cash Indemnity ("days of service")	11.75	11.89	10.87	12.53	12.60	11.69	10.95	11.06	10.56
Temporary Disability Benefit (compensable days)	26.02	24.70	31.65	18.94	18.73	21.67	28.79	27.54	32.82
Maternity Benefit (compensable days)	42.25	-	42.25	-	-	-	42.25	-	42.25
Dependents' Medical Benefit ("days of service")	18.83	-	-	-	-	-	18.83	-	-

Source: Table 5 of this study.

llar Workers' Health Insurance Schemes for the Fiscal Year Ending 31 March 1942.

			White-Collar Workers' Health Insurance								
			Society-managed			Government-managed			Society-managed		
onal illnesses & injuries			Occupational & Non-occupational causes			Occupational & non-occupational causes			Occupational & non-occupational causes		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	10.69	10.96	9.79	10.24	8.37	10.91	10.95	10.83	13.40	13.83	12.79
	10.68	10.96	9.75	10.20	8.35	-	-	-	-	-	-
	11.06	10.56	18.79	18.77	18.92	-	-	-	-	-	-
	27.54	32.82	21.90	22.05	21.15	51.30	52.72	49.23	58.53	55.04	61.35
	-	2.25			42.01	47.89	-				
	-	42.25	42.01	-	42.01	47.89	-	47.89	49.03	-	49.03
	-	-	18.71	-	-	20.39	-	-	20.57	-	-

Table 7. Benefit Payments (in Yen) by the Health Insurance and White-Collar Workers' Health In

Type of Benefit	Government-managed Health Insurance: Occupational & non-occupational causes			Government-managed Health Insurance: Occupational illnesses & injuries			White-Collar Workers' Health Insurance: Non-occupational illnesses & in		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Fem
Total Benefit Payments	59,686,026	-	-	-	-	-	-	-	
Medical Benefit	37,667,192	-	-	-	-	-	-	-	
Medical Service	37,286,328	-	-	-	-	-	-	-	
Cash Indemnity	380,864	331,545	49,319	182,567	169,905	12,662	198,297	161,640	3
Temporary Disability Benefit	18,419,572	15,827,807	2,591,765	4,255,023	3,937,109	317,914	14,164,549	11,890,698	2,27
All Childbearing Benefits	2,078,254	-	2,078,254	-	-	-	2,07 ,254	-	2,07
Maternity Benefit	1,206,443	-	1,206,443	-	-	-	1,206,443	-	1,20
Childbirth Allowance 1/ (Cash)	760,038	-	760,038	-	-	-	760,038	-	76
Delivery Service Benefit	111,773	-	111,773	-	-	-	111,773	-	11
Burial Benefit	1,167,621	980,070	187,551	84,451	80,279	4,172	1,083,170	899,791	18
Dependents' Medical Benefit	353,387	-	-	-	-	-	353,387	-	-
Hospital Bed and Board	272,404	-	-	-	-	-	272,404	-	-
Operations Exceeding 10 Yen	80,983	-	-	-	-	-	80,983	-	-

1/ These amounts are smaller than the theoretical totals, calculated from the number of cases shown in Table 5 to have received this benefit, both with and without the delivery service benefit. The statutory amount was 20 yen per live birth for mothers who did not receive the delivery benefit, and 10 yen per live birth for those who did. The discrepancies are attributed to the lag in payment of claims incurred late in the fiscal year and possibly to the failure of certain beneficiaries of the delivery benefit to claim the cash childbirth allowance as well.

Source: Tables on pages 42, 74, Abridged Report on the by Insurance Bureau, Mi

orkers' Health Insurance Schemes for the Fiscal Year Ending 31 March 1942.

al illnesses & injuries		Society-managed Occupational & non-occupational causes			White-Collar Workers' Health Insurance Govenment-managed Occupational & non-occupational causes			Society-managed Occupational & non-occupational causes		
Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
-	-	48,860,442	-	-	2,767,804	-	-	1,667,504	-	-
-	-	25,449,911	-	-	2,397,866	-	-	1,374,211	-	-
-	-	24,931,737	-	-	-	-	-	-	-	-
161,640	36,657	518,174	453,466	64,708	-	-	-	-	-	-
11,890,698	2,273,851	21,326,740	19,561,445	1,765,295	172,341	121,455	50,886	138,681	75,124	63,557
-	2,070,254	519,341	-	519,341	21,816	-	21,816	10,899	-	10,899
-	1,206,443	344,051	-	344,051	10,331	-	10,331	4,849	-	4,849
-	760,038	173,423	-	173,423	11,480	-	11,480	6,050	-	6,050
-	111,773	1,867	-	1,867	5	-	5	-	-	-
899,791	183,379	934,110	846,343	87,767	127,764	101,941	25,823	77,452	-	-
-	-	630,340	-	-	48,017	-	-	66,261	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

on pages 42, 74, and 17, "1941 Annual Report on the Health Insurance Scheme and an
d Report on the White-Collar Workers' Health Insurance Scheme," published March 1944
urance Bureau, Ministry of Welfare.

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Table 8A. Costs of Benefits (in Yen) Per Person (Exclusive of Dependents) Insured under the Health Insuran

Type of Benefit	Occupational & non-occupational causes			Government-managed Health Insurance					
	Occupational & non-occupational causes			Occupational illnesses & injuries			Non-occupational illnesses & inj		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Fe
All benefits	18.91	-	-	-	-	-	-	-	
Medical Benefit	11.93	-	-	-	-	-	-	-	
Medical Service	11.81	-	-	-	-	-	-	-	
Cash Indemnity	.12	.15	.06	.06	.07	.01	.06	.07	
Temporary Disability Benefit	5.83	6.94	2.96	1.35	1.73	.36	4.49	5.21	2
All Childbearing Benefits	.66	-	2.37	-	-	-	.66	-	2
Maternity Benefit	.38	-	1.38	-	-	-	.38	-	1
Cash Childbirth Allowance	.24	-	.87	-	-	-	.24	-	
Delivery Service Benefit	.04	-	.13	-	-	-	.04	-	
Burial Benefit	.37	.43	.21	.03	.04	.00	.34	.39	
Dependents' Medical Benefit	.11	-	-	-	-	-	.11	-	
Hospital Bed and Board	.09	-	-	-	-	-	.09	-	
Operations Exceeding ¥ 10	.03	-	-	-	-	-	.03	-	

Source: Tables 1 and 7 of this study.

lth Insurance and White-Collar Workers' Health Insurance Schemes for the Fiscal Year Endi ng 31 March 1942.

esses & injuries		Society-managed Occupational & non-occupational causes			White-Collar Government-managed Occupational & non-occupational		Workers' Health Insurance Society-managed Occupational & non-occupational causes			
le	Female	Both sexes	Male	Female	Both sexes	Male	causes Female	Both sexes	Male	Female
.	-	23.40	-	-	5.81	-	-	7.43	-	-
.	-	12.19	-	-	5.03	-	-	6.12	-	-
.	-	11.94	-	-	-	-	-	-	-	-
.07	.04	.25	.28	.14	-	-	-	-	-	-
.21	2.59	10.21	12.05	3.80	.36	.37	.34	.61	.51	.74
..	2.37	.25	-	1.12	.05	-	.15	.05	-	.13
-	1.38	.16	-	.74	.02	-	.07	.02	-	.06
-	.87	.08	-	.37	.02	-	.08	.03	-	.07
-	.13	.00	-	.00	.00	-	.09	.00	-	.00
.39	.21	.45	.52	.18	.27	.31	.17	.35	-	-
-	-	.30	-	-	.10	-	-	.30	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	--	-	-	-	-

Table 8B. Costs of Benefits (in Yen) Per Case under the Health Insurance and White-Colla

Type of Benefit	Health Insurance (Occupational & non-occupational causes			Government-managed Health Insurance Occupational illnesses & injuries			Non-occupational illnesse	
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male
Medical Benefit	5.18	-	-	-	-	-	-	-
Medical Service	5.17	-	--	-	-	-	-	-
Cash Indemnity	5.67	5.75	5.17	5.41	5.47	4.79	5.93	6.09
Temporary Disability Benefit	27.58	29.28	20.37	22.68	22.61	23.71	29.50	32.45
Maternity Benefit	24.06	-	24.06	-	-	-	24.06	-
Cash Childbirth Allowance	16.28	-	16.28	-	-	-	16.28	-
Delivery Service Benefit	6.87	-	6.87	-	-	-	6.87	-
Burial Benefit	51.94	57.82	33.90	60.41	61.71	43.01	51.37	57.50
Dependents' Medical Benefit	36.40	-	-	-	-	-	36.40	-
Hospital Bed and Board	27.20	-	-	-	-	-	27.20	-
Operations Exceeding ¥ 10	19.40	-	-	-	-	-	19.40	-

Source: Tables 5 and 7 of this study.

nd White-Collar Workers' Health Insurance Schemes for the Fiscal Year Ending 31 March 1942.

ional illnesses & injuries		Society-managed Occupational & non-occupational causes			White Collar Workers' Health Insurance Government-managed Occupational & non-occupational causes		Society-managed Occupational & non-occupational causes		
s Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
-	-	4.31	-	-	6.05	-	-	7.29	-	-
-	-	4.24	-	-	-	-	-	-	-	-
6.09	5.32	21.13	21.34	19.80	-	-	-	-	-	-
32.45	19.98	26.58	29.43	12.82	36.41	43.35	26.35	37.43	45.39	31.00
-	24.06	27.17	-	27.17	28.86	-	28.86	31.49	-	31.49
-	16.28	17.55	-	17.55	19.93	-	19.93	19.97	-	19.97
-	6.87	6.14	-	6.14	5.00	-	5.00	-	-	-
57.50	33.74	61.74	67.91	32.91	54.34	58.22	43.04	52.05	-	-
-	-	26.87	-	-	33.74	-	-	43.19	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

Table 8C. Costs of Benefits (in Yen) Per "Day of Service" or Per Compensable Day of Cash Benefit under the Health Insurance (

Type of Benefit	Occupational & non-occupational causes			Government-managed Occupational illnesses & injuries			Non-occupational illnesses	
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male
Medical Benefit (per "day of service")	.49	-	-	-	-	-	-	-
Medical Service	.49	-	-	-	-	-	-	-
Cash Indemnity	.48	.48	.48	.43	.43	.41	.54	.55
Disability Benefit (per compensable day)	1.06	1.19	.64	1.20	1.21	1.10	1.02	1.18
Maternity Benefit (per compensable day)	.57	-	.57	-	-	-	.57	-
Dependents' Medical Benefit (per "day of service")	.19	-	-	-	-	-	.19	-

Source: Tables 5 and 7 of this study.

nefit under the Health Insurance and White-Collar Workers' Health Insurance Schemes for the Fiscal Year Ending 31 March 1942.

							White-Collar Workers' Health Insurance				
			Society-managed			Government-managed			Society-managed		
ational illnesses & injuries			Occupational & non-occupational causes			Occupational & non-occupational causes			Occupational & non-occupational causes		
es	Male	Female	Both Sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	-	-	.44	-	-	.54	-	-	.54	-	-
	-	-	.43	-	-	-	-	-	-	-	-
	.55	.50	1.12	1.13	1.05	-	-	-	-	-	-
	1.18	.61	1.22	1.34	.61	.71	.82	.54	.64	.83	.51
	-	.57	.63	-	.63	.60	-	.60	.64	-	.64
	-	-	1.44	-	-	1.66	-	-	2.10	-	-

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Table 9. Benefit Expenditures Expressed as Percentages of Average Annual Taxable Earnings Per Person (Exclusive of Dependents) Insured

Type of Benefit	Health Insurance							
	Occupational & non-occupational causes			Government-managed Occupational illnesses & injuries			Non-occupational illnesses & inj	
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Fe
All Benefits	3.28	-	-	-	-	-	-	-	
Medical Benefit	2.07	-	-	-	-	-	-	-	
Temporary Disability Benefit	1.01	1.03	.93	.23	.26	.11	.78	.77	
All Childbearing Benefits	.11	-	.74	-	-	-	.11	-	
Maternity Benefit	.07	-	.43	-	-	-	.07	-	
Childbirth Allowance	.04	-	.27	-	-	-	.04	-	
Delivery Benefit	.01	-	.04	-	-	-	.01	-	
Burial Benefit	.06	.06	.07	.01	.01	.00	.06	.06	
Dependents' Medical Benefit	.02	-	-	-	-	-	.02	-	
Hospital Bed and Board	.02	-	-	-	-	-	.02	-	
Operations Exceeding ¥ 10	.01	-	-	-	-	-	.01	-	

Source: Tables 2C and 8A of this study.

idents) Insured under the Health Insurance and White-Collar Workers' Health Insurance Schemes for the Fiscal Year Ending 31 March 1942.

						White-Collar Workers' Health Insurance					
		Society-managed			Government-managed			Society-managed			
illnesses & injuries		Occupational & non-occupational causes			Occupational & non-occupational causes			Occupational & non-occupational causes			
Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
-	-	3.36	-	-	.97	-	-	1.24	-	-
-	-	1.75	-	-	.84	-	-	1.02	-	-
.77	.81	1.47	1.51	1.11	.06	.05	.08	.10	.07	.17
-	.74	.04	-	.33	.01	-	.04	.01	-	.03
-	.43	.02	-	.22	.00	-	.02	.00	-	.01
-	.27	.01	-	.11	.00	-	.02	.00	-	.02
-	.04	.00	-	.00	.00	-	.00	.00	-	.00
.06	.07	.06	.07	.05	.05	.05	.04	.06	-	-
-	-	.04	-	-	.02	-	-	.05	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

Table 5 demonstrates that the frequency and volume of medical benefits and of temporary disability benefits for occupational injuries, diseases, and deaths constituted a relatively small segment of the total. Cases and "days of service" for occupational disabilities, in relation to the total, were particularly small for insured women. The minor importance of occupational as compared with non-occupational disabilities is more clearly reflected in Table 6A.

Table 6B indicates that non-occupational disabilities required more protracted medical care and a longer period of cash compensation than those which were work-connected. This result is to be expected since compensation for occupational disabilities began immediately while the non-occupational ones had a waiting period of three days under Health Insurance, thus eliminating many short-term cases. Table 6A also shows a greater number of cases and a longer benefit period per person insured under society-managed than under government-managed Health Insurance, for both the medical and the temporary disability benefit. In part this may be a reflection of a more generous administration of benefits by the societies.

Table 8A shows the larger benefit payments per insurance society member compared with benefits administered by the corresponding government-managed scheme. These larger payments were especially marked for temporary disability benefits, with respect to which the amount spent per insurance society member was nearly twice that provided by the government-managed scheme. It is also of interest that in the societies expenditures for maternity benefits were about half of those under the government-managed schemes because of a smaller number of such claimants.

A comparison between the Health Insurance and White-Collar Workers' Health Insurance schemes shows wide differences because of variations in benefits and eligibility for them.

The much larger expenditures by insurance societies for dependents' medical benefits probably reflect the greater ease with which insured persons were apprised of their rights through the societies than through the government-administered programs. This difference in expenditures is demonstrated plainly in Tables 8A and 8C.

Table 9 shows that the aggregate statutory benefit costs per insurance society member represented a somewhat higher fraction of taxable earnings, compared with the government-managed schemes. Nevertheless, the percent of earnings spent on medical benefits by Health Insurance societies was appreciably less than that disbursed by the corresponding government-managed scheme. This

lower proportionate cost no doubt reflects in part the economy resulting from the fact that society members had access to medical care provided by a salaried staff. Perhaps even more important is the fact that their employers bore a large part of the medical care costs through provision of facilities and personnel, both supported to a significant extent by employers' subsidies.

Additional Statistical Information

The discussion and tables in this study thus far have been focussed on those aspects of the 1941 Annual Report essential to any use of the experience of the Health Insurance schemes as a basis for cost estimation. The Annual Report contains additional data of general interest. It shows separately for the four schemes the distribution of coverage in terms of major industrial groupings. It also gives the case frequency and volume of benefits for specified diagnostic classifications such as tuberculosis, trachoma, and other diseases of public health significance. Such data may prove useful in determining the prevalence of these diseases in the general population.

The tables calling attention to the insignificant extent of voluntary participation in the Health Insurance schemes, by individuals and groups alike, have already been mentioned. Another table shows the frequency of, and the number of participants in, the different activities known as welfare services. Detailed tabulations by individual prefecture and by type of industry are given in a statistical appendix, expanding most of the summary tables and supplementing the text.

Of particular interest are tables on pages 11 and 80, dealing with payments to private physicians and hospitals who served insurance patients. They suggest the magnitude of the prefectural medical associations' and the Japan Medical Association's function of reviewing bills and, in general, acting as intermediaries between insurance funds and individual physicians. They also illustrate some of the contractual relationships between the organized medical profession and the Minister of Welfare in the administration of the health insurances. The table on page 11 is reproduced below, with some additions, as Table 10.

Other tables on pages 81 and 82 of the Annual Report contain similar information as regards the Japan Dental Association and the Japan Pharmaceutical Association. The participation of the latter in health insurance practice is hardly worth mentioning, since Japanese physicians typically dispense drugs themselves. Only 292 prescriptions were filled for subscribers to government-managed Health Insurance during the whole fiscal year, with a

total expenditure of 1,779 yen. Of that amount, 1,200 yen represented the subsidy provided by the insurance fund for the Association's administrative expenses.

The final tabulation in this study, Table 11, demonstrates the minor extent to which publicly-owned institutions, compared to private physicians and hospitals, provided services to, and received payment for treating, insurance beneficiaries. This should be kept in mind in any review of statistics on Japanese hospitals. In the year under discussion the great bulk of in-patient as well as ambulatory medical care (at least that received by insured individuals) was provided by private practitioners in their own establishments. Most of these establishments contain fewer than ten beds, thus obviating the necessity for registering them as hospitals. A large number of treatment sources, where the people actually went to obtain medical care, thus do not even appear in hospital statistics.

Table 10. Payments to Insurance Physicians and Hospitals by the Government-Managed Health Insurance Scheme during the Fiscal Year ending 31 March 1942.

Average Number of Private Physicians Treating Insurance Patients 1/	20,217
Points of Service Claimed	144,634,112
Ambulatory Patients	136,968,083
Hospitalized Patients	7,666,029
Points of Service Approved for Payment	137,466,737
Ambulatory Patients	130,484,475
Hospitalized Patients	6,982,262
Extent of Payment of Claims	
Ambulatory Patients	95%
Hospitalized Patients	91%
Monetary Value of One Point of Service 2/	18.63 sen
Payments to Japan Medical Association on Behalf of Private Practitioners 3/	¥30,507,601
Administrative Expenses (Prefectural and National Associations)	¥667,500
Hospital Care	
Bed and Board 4/	¥3,660,693
Medical Service	¥1,332,693
Ambulatory Care	¥24,846,715
Total Payments to Physicians and Hospitals 5/	¥33,907,534
Payments to Private Physicians and Hospitlas	
Direct Payments 6/	¥32,085,851
Cash Indemnities to Beneficiaries 7/	¥380,864
Payments to Publicly-Owned Hospitals 8/	¥1,440,819
Payments to Private Physicians and Hospitals	¥32,466,715
Proportion Paid to Private Physicians and Hospitals	95.75%
Payments to Publicly-Owned Hospitals	¥1,440,819
Proportion Paid to Publicly-Owned Hospitals 9/	4.25%

1/ In an average month. Obtained by dividing the total number of monthly payments made to insurance physicians, 242,602 (obtained from table on page 80 of Annual Report), by 12. Theoretically there were 53,873 "insurance physician" that fiscal year, of whom 3,040 were appointed during the year. The Japan Medical Association designated the doctors, who were then formally authorized by the Minister of Welfare to serve insurance patients.

2/ The Japan Medical Association contracted with the Minister of Welfare to render necessary services to insurance beneficiaries for 8.163 yen per capita for non-miners and 10.163 yen per capita for miners, during the year under discussion. The total sum thuse made available, divided by the number of points of service rendered, determined the monetary value of one point. A maximum value of 22 sen, above which the point could not rise, and a minimum of 18 sen, below which it was not permitted to fall, were also stipulated in the contract. Medical services to dependents, however, were provided at the rate of 10 sen per point, since the insured was responsible for paying an equal amount.

3/ These figures represent amounts obligated during this fiscal year, not actually spent. That is the way they were reported by the Japan Medical Association.

4/ Hospital bed and board charges during the year in question were not included in the per capita payment referred to in footnote 2. A separate contract was executed for this purpose, providing for payment on a flat fee basis. The per diem charges agreed upon were 3.00 yen for the six large cities (Tokyo, Yokohama, Osaka, Kobe, Nagoya, and Kyoto), 2.60 yen for other cities, and 2.00 yen for towns and villages. This charge also included payment for the first three points of medical service in the hospital. The average daily charge for this fiscal year was 2.66 yen.

5/ Actual payments during this fiscal year, rather than amounts obligated. This figure, furnished separately by Insurance Bureau officials, excludes payments to dentists, pharmacists, private duty nurses, and expenditures for transportation of patients and for subsidizing tuberculosis sanatoria owned and operated by prefectural governments - all of which are included in the medical service benefit as shown in Table 7.

6/ Actually paid to Japan Medical Association during this fiscal year.

7/ Represents payments made to private physicians and hospitals.

8/ 91 public hospitals rendered service to beneficiaries during this year. Separate contracts were signed between each hospital and the appropriate prefectural governor. Participation in insurance practice was voluntary. Charges were on a fee-for-service basis and were usually lower than in the private hospitals. Some of these institutions granted a 10 percent or even a 20 percent discount on charges for service to insurance beneficiaries.

9/ Until 1938 this amount was limited by the contract with the Japan Medical Association to 3.2 percent of the total expenditure for medical service.

Source: Bottom table on page 11, tables on pages 42 and 80 of the 1941 Annual Report. Additional information from officials of the Insurance Bureau, Ministry of Welfare.

Table 11. Comparative Experience of Government-Managed Health Insurance with Private Practitioners 1/ and Publicly-Owned Hospitals 2/ during the Fiscal Year ending 31 March 1942.

Type and Source of Treatment	Cases	"Days of Service"	Expenditures (Yen)	Costs (in Yen) per "day of Service"
All Types and Sources of Treatment 3/	6,953,699	65,493,425	30,822,611	0.471
All Hospitalizations	103,277	1,642,324	5,546,240	3.38
Private Practitioners and Hospitals	86,758	1,331,608	4,685,473 6/	3.52 7/
Publicly-owned Hospitals 4/	8,575	164,738	372,393	2.26
Publicly-owned University Hospitals 5/	7,944	145,978	488,374	3.35
All Ambulatory Treatment	6,850,422	63,851,101	25,276,371	0.396
Private Practitioners and Hospitals	6,745,216	62,849,485	24,696,319	0.393
Publicly-owned Hospitals 4/	66,441	634,308	305,858	0.482
Publicly-owned University Hospitals 5/	38,765	367,308	274,194	0.747

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1/ Averaging 20,217 per month.

2/ Totalling 91 for the year.

3/ These amounts are smaller than those shown in Tables 5 and 7, due to incomplete reporting by some of the prefectures as regards expenditures, see also footnote 5, page 31 and footnote 6 of this page.

4/ There were very few nationally-owned civilian hospitals before the end of the war. The majority of institutions in the present National Hospital System were army and navy hospitals before the cessation of hostilities. The public hospitals included here were controlled mostly by prefectures. A few may have been controlled by cities, towns, and villages.

5/ There were only seven Imperial Universities in Japan proper and seven prefectural medical schools of university rank.

6/ Represents payments for actual medical care only. Does not include the 667,500 yen paid to the prefectural medical associations and to the Japan Medical Association for administrative expenses and for the cost of conducting short orientation courses in insurance administrative procedure for participating physicians.

7/ Includes costs of medical services in hospitals as well as bed and board charges. The average cost of the latter amounted to 2.66 yen per day.

Source: Insurance Bureau, Ministry of Welfare

It is seen from Tables 10 and 11 that although private physicians and hospitals received over 95 percent of government-managed Health Insurance funds spent for all medical and hospital services, they received almost 98 percent of the amount which went for the care of ambulatory patients, but only slightly more than 84 percent of expenditures on behalf of hospitalized cases. Reference to costs per "day of service" in Table 11 reveals the smaller liability to the insurance fund represented by hospitalizations in public, rather than in private, institutions. The higher per diem cost of ambulatory treatment in out-patient departments of public hospitals, rather than in private clinics, is attributed to the fact that seriously ill patients are more apt to be attracted to the large public hospitals, where opportunities for specialized care (both in personnel and equipment) are greater.

The greater economy to the insurance fund resulting from the purchase of medical care from public rather than from private sources is illustrated by Table 11 in another way. Private physicians cared for 84 percent of all hospitalized cases and received slightly more than 84 percent of the expenditures for that purpose, but gave only 80.5 percent of the "days of service". As regards ambulatory patients, private practitioners treated over 98 percent of the cases, rendered only a slightly smaller proportion of the "days of service", and received almost 98 percent of the expenditures.

Insurance Bureau officials maintained that the reason for the minor utilization of public hospitals by insurance beneficiaries during this year was due not to their non-acceptability but simply to their paucity. The fact that they were utilized particularly by patients with serious illnesses would tend to bear this out. Further corroboration is found in a comparison with more recently-compiled figures, for the period from November 1946 to April 1947. During the year or so prior to that period a good number of former army and navy hospitals had been taken over by the Ministry of Welfare and opened to the general public. Between November 1946 and April 1947 private hospitals cared for only 70 percent of hospitalized insurance beneficiaries (compared to 84 percent in the earlier year), and private practitioners treated less than 90 percent of the ambulatory patients, instead of over 98 percent.

Purchase of care from public hospitals still was more economical for the insurance fund in the later period. Private hospitals rendered under 59 percent of the "days of service" given hospitalized patients but received over 64 percent of expenditures for that purpose. Relationships in ambulatory care remained about the same as in the earlier period. Public hospitals still gave slightly more than their share of "days of service" to out-patients, and higher costs per day were still attributed to the greater severity of their cases.

It may be of passing interest to note the inflation in medical care costs which took place between April 1942 and April 1947. The average cost per day in a private hospital 3.52 yen, rose to 35.00 yen, an increase of almost 10 times. In public hospitals the cost increased over 12 times, to an average of 27.8 yen per day. The average cost of ambulatory treatment for one day, at the hands of a private practitioner, 39.3 sen, rose to 6.32 yen, an increase of over 16 times. In public hospital out-patient departments the cost increased over 13 times, to an average of 7.98 yen per day.

IX. Selected Benefit Statistics of the Japanese Social Insurances in the Fiscal Year 1946-47

A. Health Insurance 1/	Cases	Days		Amount in Yen	
		Total	Per Case	Total	Per Case
1. Benefits for primary insured					
Medical services	1,395,832	13,300,175	9.4	114,449,667	82
Dental services	64,512	440,209	6.8	4,077,850	63
Nursing services	1,548	38,513	24.9	393,697	254
Medical and dental cash benefits (in lieu of care)	15,437	318,279	20.6	2,788,212	181
Temporary disability cash benefits	181,224	5,042,351	27.8	27,935,430	154
Delivery grants	6,970	-	-	705,579	101
Confinement allowances	6,302	224,821	35.7	844,157	134
Funeral grants	22,122	-	-	3,868,835	175
2. Benefits for dependents					
Medical services	433,063	3,322,845	7.2	13,701,255	32
Dental services	9,548	59,423	6.2	307,756	32
Nursing services	48	1,130	23.6	5,729	119
Medical and dental cash benefits (in lieu of care)	7,063	216,988	30.7	10,777,658	2/
Delivery grants	83,016	-	-	3,640,307	44

1/ This covers only the government-managed part of the program. Available data on the society-managed part are incomplete and out-of-date.

2/ The per-case figure would not be significant since the total amount in yen consists for the most part of payments made to National Health Insurance for treatment given to dependents of persons insured under Health Insurance. This arrangement is based on Art. 87-10 of the Enforcement Ordinance to the Health Insurance Law. The total amount is given to the Federation of National Health Insurance Associations, which distributes it among the associations treating dependents. The number of cases and days is not reported.

B. Welfare Pension Insurance

	Cases	Amount in Yen Total	Per Case
1. One-time lump sum grants			
Retirement allowances, total	600,702	89,712,052	149
Male	469,334	83,934,033	179
Female	131,368	5,777,019	44
Invalidity allowances, total	11,970	14,266,851	1,190
Male	11,221	13,647,127	1,210
Female	749	619,724	880
Survivors allowances, total 1/	4,653	14,177,374	3,460
Male	3,085	11,089,597	3,590
Female	1,568	3,087,776	1,970
2. Pensions			
Survivors' pensions, total	9,492	6,545,545	690
Male	9,096	6,302,490	694
Female	396	243,055	615
Invalidity pensions, total	1,805	1,117,378	620
Male	1,684	1,073,906	647
Female	121	43,472	357

1/ Chiefly lump sum payments to survivors of insured who lost their lives for duty-connected causes.

C. Seamen's Insurance

1. Short-term benefits

	Cases	Days		Amount in Yen	
		Total	Per Case	Total	Per Case
Medical services	58,567	454,642	7.3	7,162,535	122
Dental services	2,869	15,874	5.5	113,048	39
Nursing services	1,194	27,577	23.4	219,976	184
Medical cash benefits (in lieu of care)	721	23,171	32.4	194,742	270
Temporary disability cash benefits	5,679	340,276	59.0	1,880,975	331
Funeral grants	2,608	-	-	846,348	324

2. Long-term benefits

	Cases	Amounts in Yen	
		Total	Per Case
a. One-time lump sum grants			
Invalidity allowances	86	102,431	1,192
Survivors' allowances	5,742	12,113,495	2,112
Retirement allowances	2,230	1,500,184	673
b. Pensions			
Invalidity pensions	49	28,091	573
Survivors' pensions	4,720	4,547,657	913

Financial Statistics of the Japanese Social Insurances for the Fiscal Years 1944-45 to 1946-47

A. Health Insurance

1. Government-managed Health Insurance

a. Coverage	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-4
Number of primary insured	2,250,013	3,370,226	4,650,306
Estimated number of dependents	5,170,000	6,740,000	6,280,000
Number of establishments covered	83,709	106,190	151,065
Total taxable payroll	¥ 7,110,000,000	¥ 3,190,000,000	¥4,020,000,000
Average taxable wage per month	¥ 263	¥ 79	¥ 72
Upper limit of taxable monthly wage	¥ 600	¥ 200	Until June: ¥150 From June: ¥ 200
Tax-sharing between employer & employee	Miners 62.5: 37.5 Other workers 50:50	Miners 62.5: 37.5 Other workers 50:50	Miners 62.5: 37.5 Other workers 50:
b. Income			
Rate of total contribution	Miners 8% White-collar workers 3% Other workers 4.8%	Miners 8% White-collar workers 3% Other workers 4.8%	Miners 8% White-collar workers 3% Other workers 4.8
Total contributions	¥ 250,550,550	¥ 106,419,946	¥ 143,643,582
Average contribution per primary insured	¥ 113	¥ 32	¥ 31
National subsidy (for administration)	¥ 2,565,313	¥ 2,565,313	¥ 2,565,313
National subsidy per capita of primary insured	¥ 1.1	¥ 0.4	¥ 0.5
National subsidy per capita of all insured	¥ 0.3	¥ 0.2	¥ 0.2
Interest on reserve	¥ 7,191,890	¥ 5,627,688	¥ 4,822,328
Total income, including miscellaneous	¥ 263,573,562	¥ 115,306,852	¥ 151,297,906

	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-45
c. Expenditure			
Cost of benefits, total	¥ 186,042,473	¥ 62,071,000	¥ 84,005,000
Benefits for primary insured	¥ 157,609,095	¥ 47,712,000	¥ 78,880,000
Benefits for dependents	¥ 28,433,378	¥ 14,359,000	¥ 5,125,000
Per capita benefit expenditure (number of primary insured	¥ 83	¥ 19	¥ 18
Per capita benefit expenditure (number of all insured	¥ 25	¥ 6	¥ 8
Cost of capital outlay, welfare services, and drugs	¥ 17,810,183	¥ 3,440,984	¥ 2,662,161
Cost of administration	¥ 30,295,286 (1)	¥ 7,602,264	¥ 4,578,140
Total expenditure, including miscellaneous	¥ 234,735,465	¥ 82,051,997	¥ 91,824,531
d. Reserves			
Annual surplus	¥ 28,838,097	¥ 32,254,855	¥ 59,473,375
Total reserve at end of year	¥ 266,761,499 (2)	¥ 238,030,158 (2)	¥ 205,546,590
2. Society-managed Health Insurance			
a. Coverage			
Number of primary insured	1,984,095	3,000,569	4,568,502
Estimated number of dependents	4,560,000	6,001,000	6,040,000
Number of societies	627	602	592
Upper limit of taxable monthly wage	¥ 600	¥ 200	Until June 44: ¥ 150 From June 44: ¥ 200
Tax-sharing between employer & employee	Employers paying 50-59% : 299 60-69% : 239 70-79% : 69 80-89% : 18 90% & over 2 Total 627	Not Available	Not available

(1) ¥ 633,251 of total administrative subsidy received was carried forward to the next fiscal year.

(2) Minor discrepancies between actual and book reserves are due to belated deposits by several prefectures.

	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-45
b. **Income**			
Rate of contribution	not available	not available	Minimum: 2% Maximum: 9.7% Average: 5%
Total contributions 1/	¥ 376,668,000	¥ 140,307,000	¥ 194,733,000
Average contribution per primary insured	¥ 190	¥ 47	¥ 43
National subsidy (for administration)	¥ 3,401,460	¥ 5,462,578	¥ 8,494,483
National subsidy per capita of primary insured	¥ 1.8	¥ 1.6	¥ 1.9
National subsidy per capita of all insured	¥ 0.5	¥ 0.6	¥ 0.8
c. **Expenditure**			
Cost of benefits 2/	¥ 217,220,000	¥ 86,590,000	¥ 131,097,000
Benefits for primary insured	¥ 187,406,000	¥ 82,105,000	¥ 123,146,000
Benefits for dependents	¥ 29,783,000	¥ 4,485,000	¥ 7,950,000
Per capita benefit expenditure (number of primary insured)	¥ 109	¥ 29	¥ 29
Per capita benefit expenditure (number of all insured)	¥ 33	¥ 10	¥ 13
d. **Reserves 3/**	¥ 119,249,000	¥ 110,567,000	¥ 107,159,000

1/ These figures do not include the substantial but unknown contributions made by employers in the form of hospitals, clinics, personnel, and office space charged as business expense.

2/ These figures do not include the cost of additional benefits provided by some societies over and above those provided by law. These are often financed in their entirety by the employer. Among the costs not included are capital outlay and welfare services.

3/ Estimated on the basis of a small sample of societies from which reports were received.

B. National Health Insurance

	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-45
a. Coverage			
Number of associations	(9,605) 1/		
	7,377	10,337	10,420 2/
Total number of insured persons	(42,382,289)		
	30,447,900	40,917,860	41,161,301 2/
Primary insured	(8,140,000) 1/		
	6,089,580	7,905,752	7,941,679 2/
Dependents	(34,242,289) 1/		
	24,458,320	33,012,108	33,219,622 2/
b. Income			
Average contribution rate per primary insured	¥ 108	¥ 33	¥ 20
Total contributions	¥ 654,629,000	¥ 261,443,000	¥157,245,000
National subsidy (for administration, operating, and capital outlay costs)	¥ 226,501,133	¥ 69,538,077	¥ 62,623,788
Prefectural subsidies	¥ 3,723,755	¥ 1,040,167	¥ 804,364
Local subsidies, estimated	¥ 3,360,000	¥ 520,000	¥ 400,000
Other income, including special assessments on membership, donations and local contributions for construction of clinics, but not including loans and reserve funds	¥ 39,799,617	¥ 3,082,459	not available
Total income	¥ 928,013,505	¥ 335,623,703	¥221,073,152

1/ The bracketed figures are those actually reported. However, they are in such contrast to other reports and evidence, that it must be assumed that the reporting units included an appreciable number of inactive associations. The smaller figures are estimates.

2/ Including Okinawa and other areas not now belonging to Japan.

	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-45
c. Expenditure			
Cost of benefits, total	¥ 728,058,000 1/	¥ 373,661,000 1/	¥ 237,227,513
Per capita benefit expenditure (total number of insured)	¥ 24	¥ 9	¥ 6
Health and welfare services	¥ 38,195,000	¥ 5,000,000 2/	¥ 22,273,110
Construction of clinics and hospitals	¥ 271,049,075	¥ 8,415,564	not available
Cost of administration	¥ 149,500,000 3/	¥ 42,077,246	not available
Total expenditure, including miscellaneous	¥ 1,242,703,000	¥ 429,153,810	not available
d. Reserves	not available	not available	not available

1/ Figures for 1945 and 1946 represent medical services and cash payments for medical treatment only. They do not include services of and cash payments for obstetric care and funerals, included in the 1944 figure. The latter were not available for these two years but are believed to be small.

2/ Estimate.

3/ This figure represents the total estimated cost of administration at the time the budget for that year was prepared. During the year actual cost proved lower than expected and the estimate was scaled down to ¥88,719,000. However, actual expenditures were probably closer to the original estimate but are not as yet available.

C. Welfare Pension Insurance

	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-45
a. Coverage			
Number of insured 1/	4,282,785	6,418,551	6,631,613
Number of establishments covered	88,811	105,970	98,856
Total taxable payroll	¥ 15,595,590,496	¥ 6,583,894,445	¥ 6,501,044,701
Average taxable wage per month	¥ 303	¥ 85	¥ 82
Upper limit of taxable monthly wage	¥ 600	¥ 200	¥ 200
Tax-sharing between employer & employee	50:50	50:50	50:50
b. Income			
Rate of total contribution	Underground miners: 15% Other workers: 11%	Underground miners: 15% Other workers: 11%	Underground miners: 15% Other workers: 11%
Total contributions	¥ 1,543,730,034	¥ 577,158,987	¥ 511,804,848
Average per capita contribution	¥ 360	¥ 90	¥ 62
National subsidy for benefits	¥ 13,124,129 2/	¥ 141,129	¥ 65,339
National subsidy for administration	¥ 11,184,000	¥ 5,744,250	¥ 5,406,642
Total national subsidy per capita of insured	¥ 5.7	¥ 0.9	¥ 0.8
Interest on reserve	¥ 37,987,365	¥ 29,827,878	¥ 16,788,750
Total income, including miscellaneous	¥ 1,606,292,612	¥ 612,915,378	¥ 534,066,274

1/ Annual average.

2/ During the war years a large part of national subsidies due to the Welfare Pension Insurance system was not paid out. Hence the large payment in 1946 which left, nevertheless, a balance of ¥ 10,415,762 to the credit of the system as of the end of that year.

c. Expenditure	Fiscal Year 46-47	Fiscal year 45-46	Fiscal year 44-45
Cost of benefits, total	¥ 126,032,148	¥ 53,601,162	¥ 623,293
Per capita benefit (number of insured)	¥ 30	¥ 8	¥ 0.01
Cost of welfare services and capital outlay	¥ 1,578,400	¥ 1,511,000	¥ 554,406, 0
Cost of administration	¥ 11,184,000	¥ 5,744,250	¥ 5,406,642
Total expenditure including miscellaneous	¥ 139,161,605	¥ 61,204,258	¥ 6,135,894
d. Reserves			
Annual surplus	¥ 1,467,131,008	¥ 551,711,120	¥ 528,002,990
Total reserve at end of year	¥ 2,923,053,256	¥ 1,455,922,248	¥ 904,211,128

D. Seamen's Insurance

	Fiscal Year 46-47	Fiscal Year 45-46	Fiscal Year 44-45
a. Coverage			
Number of insured	93,468	91,723	122,258
Number of establishments covered	1,473	not available	not available
Total taxable payroll	¥ 334,115,930	¥ 92,009,950	¥ 90,957,215
Average taxable wage per month	¥ 298	¥ 84	¥ 62
Upper limit of taxable monthly wage	¥ 750	¥ 250	¥ 150
Tax-sharing between employer and employee	59:41	59:41	60:40
b. Income			
Rate of total contribution	17%	17%	10%
Total contributions	¥ 57,641,564	¥ 13,126,023	¥ 8,463,548
Average per capita contribution	¥ 617	¥ 143	¥ 69
National subsidy for benefits 1/	¥ 8,525,246	¥ 5,484,138	¥ 96,543
National subsidy for administration	¥ 473,052	¥ 296,079	¥ 179,269
Total national subsidy per capita of insured	¥ 96	¥ 63	¥ 2
Interest on reserve	¥ 1,624,289	¥ 1,715,363	¥ 377,649
Total income, including miscellaneous	¥ 68,268,726	¥ 20,805,144	¥ 9,920,321

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1/ The large amount of subsidy paid in the years 1945 and 1946 is explained by the special obligations undertaken by the national government in regard to pensions payable for war-connected causes. The excess of 1945 subsidies over expenditures in the same year is due to inability of a majority of claimants to obtain payment due to their absence from Japan. A balance of over four million yen was carried forward to 1946 and paid in that year for benefits accrued in 1945.

	Fiscal Year 46-47	Fiscal Year 45-46	Fiscal Year 44-45
c. Expenditure			
Cost of benefits, total	¥ 25,183,652	¥ 2,932,846	¥ 2,491,949
Per Capita benefit expenditure	¥ 269	32	20
Cost of welfare services and capital outlay	¥ 872,938	680,391	568,985
Cost of administration	¥ 473,052	296,079	179,269
Total expenditure, including miscellaneous	¥ 26,651,091	3,971,735	3,425,811
d. Reserves			
Annual surplus	¥ 41,617,635	¥ 16,813,409	¥ 6,494,510
Total reserve at end of year	¥ 92,297,754	50,680,119	33,866,710

E. Government Pension System

	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-45
a. Coverage			
Number of insured	454,967	1,464,238	1,290,953
Civil 1/ 2/	454,967	334,930	226,030
Military	0	1,129,308	1,064,923
Total taxable payroll	¥ 2,227,611,061	¥ 1,113,248,593	¥ 924,424,350
Civil	¥ 2,227,611,061	¥ 421,732,093	¥ 386,351,450
Military	¥ 0	¥ 691,516,500	¥ 538,072,900
Average taxable salary per month	¥ 414 4/	¥ 63	¥ 99
Civil	¥ 414 4/	¥ 105	¥ 142
Military	¥ 0	¥ 51	¥ 42
Upper limit of taxable monthly salary	Total basic salary 5/	Total basic salary 5/	Total basic salary 5/
Estimated tax-sharing between government and employee 3/	93:7	97:3	97:3

1/ These figures are approximative; they describe the number of positions approved in the budget but not necessarily filled.

2/ Figures do not include those national civil officials paid through the prefectural governments. Their number is not exactly known but may be assumed to approximate the number of national civil officials paid by the central government.

3/ These figures do not include hidden subsidies in personnel, rent, and supplies; if they were included the ratio of subsidization is estimated to reach well over 97 percent.

4/ Estimated.

5/ This excludes a variety of allowances and bonuses, the total of which was at least equal to and in recent years even a multiple of the basic salary.

	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-45
b. Income			
Rate of employees' contribution			
Civil	Until July - 2% From July - 0.5%	2%	2%
Military	-	1%	1%
Total employee contributions	¥ 17,203,785	¥ 16,061,702	¥ 13,923,890
Civil	¥ 17,203,785	¥ 9,146,537	¥ 8,543,161
Military	¥ -	¥ 6,915,165	¥ 5,380,729
Average per capita contribution	¥ 37	¥ 14	¥ 10
Civil	¥ 37	¥ 27	¥ 33
Military	¥ -	¥ 6	¥ 5
National subsidy for benefits 1/ 2/	¥ 166,011,814	¥ 557,665,686	¥ 457,137,344
National subsidy for administration 2/ 3/	¥ 2,824,216	¥ 947,831	¥ 634,655
Total national subsidy per capita of insured 1/	¥ 369	¥ 382	¥ 355
Total income	¥ 186,039,815	¥ 574,675,219	¥ 471,695,889

1/ Estimated.

2/ Figures do not contain the amounts given by the national government to the prefectural governments in the form of subsidies for pensions paid by them chiefly to educational officials (teachers in public schools). The amounts were as follows:

Fiscal year 1944: ¥ 963,390
Fiscal year 1945: ¥ 1,451,875
Fiscal year 1946: ¥ 1,506,292

3/ Figures do not contain hidden subsidies in personnel, rent, and supplies.

	Fiscal year 46-47	Fiscal year 45-46	Fiscal year 44-45
c. Expenditure			
Cost of benefits, total	¥ 183,215,599	¥ 573,727,388	¥ 471,061,234
Civil	¥ 103,182,882	¥ 70,957,028	¥ 84,737,311
Military	¥ 80,032,717	¥ 502,770,360	¥ 386,323,923
Per capita benefit expenditure	-	¥ 392	¥ 365
Civil	¥ 227	¥ 212	¥ 374
Military	-	¥ 445	¥ 363
Cost of administration 1/	¥ 2,824,216	¥ 947,831	¥ 634,655
Total expenditures	¥ 186,039,815	¥ 574,675,219	¥ 471,695,889

1/ These figures show only a part of the actual cost, since the costs of a large fraction of administrative personnel, supplies, and facilities are charged customarily to the budgets of the government departments in which they are employed.