

INSURANCE COMPANY COSTS FOR DUPLICATING TITLE II BENEFITS

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In order that field employees of the Social Security Board may be uniformly and accurately advised regarding the so-called costs of Federal old-age insurance, represented by the taxes payable under title VIII, as compared with the costs of similar benefits from private insurance companies, the following information based on studies by the Office of the Actuary is presented.

Exact comparisons are not possible due to the fact that no private insurance company offers a policy providing benefits identical to those provided under title II of the Social Security Act.

However, an almost exact duplication of the benefits provided in title II is obtained by a combination of two types of policies offered by private companies; namely, the annual premium deferred life annuity and the annual premium deferred cash refund annuity. The latter provides annuity benefits together with a death benefit which increases each year by the amount of the annual premium; the former provides annuity benefits but no death benefit.

In the attached table are shown the annual insurance premiums that would be required for the combination of policies which duplicates (except for the detail described in the next paragraph) the benefits provided under title II. This table covers various level wages and ages at entry into the program.

This combination of insurance contracts exactly duplicates

title II in the monthly benefit and the lump-sum benefit for death prior to age 65 but is slightly more liberal as to the lump-sum refund benefit for death after 65. This slight difference has a negligible effect on the resulting comparisons.

The annual premium is obtained for a given case by first applying a premium equal to $3\frac{1}{2}\%$ of wage to the purchase of a deferred cash refund annuity so as to duplicate the death benefit, and the annuity arising from this premium is determined. The difference between this annuity and that under title II for the given case must then be purchased with a deferred life annuity (which has no death benefit). The sum of this premium and the previous one (which is $3\frac{1}{2}\%$ of level wage in all cases) is then the required premium.

As an example of the calculation involved, consider the \$100-per-month individual who enters at age 20. An annual premium of \$42.00 ($3\frac{1}{2}\%$ of wage) purchases a monthly annuity of \$29.25_a/ at age 65 on the deferred cash refund annuity basis. Since the annuity under title II for this case is \$53.75, it is necessary to purchase an additional annuity of \$24.50 on the deferred life annuity basis so as to equal the title II annuity. The annual premium required for this is \$20.90_b/. The total annual premium required is thus \$62.90 (42.00 + 20.90).

In calculating this table the lowest premiums quoted by private companies on the above types of policies have been used. If the

a/\$14.36 buys \$10 per month, so that \$42 buys $\frac{42}{1.436}$, or \$29.25 per month.

b/It costs \$8.53 to purchase \$10 per month, so that \$24.50 per month costs $24.50 \times .853$, or \$20.90.

highest premium rates were used instead, the insurance company costs would be increased by 5% to 15%. It is also significant to note that these rates are for men; the premium rates for these annuity contracts for women are 10% to 25% higher. On the other hand, it is assumed in this table that all individuals retire from "regular employment" at age 65. Under the insurance contracts the benefits are payable at age 65 regardless of work status, while under title II they are not payable while the individual is in "regular employment." If the retirement age were actually $67\frac{1}{2}$, the costs under the insurance company contracts would be reduced by 20% to 30%.

In this table there are also shown the percentages that such premiums are of the annual wage. This affords ready comparisons with the taxes levied in title VIII. In making these theoretical comparisons, the arbitrary assumption must be made that individuals enter employment at a given age and wage and continue to earn the same level wage until age 65 or prior death. For example, assuming that a young man begins work at age 20 and receives \$100 a month until retirement at age 65, he would have to pay \$62.90 per year, or 5.24% of his annual wage to obtain private insurance policies yielding benefits the same as those provided for him under title II of the Social Security Act. Assuming that taxes payable under title VIII may be considered as premium payments, the employee cited above will pay a maximum of only 3% of his annual wage for the benefits provided under title II, while his employer will pay an additional 3% at the most.

Thus, when the figure shown in the percentage columns of this table is above 3%, it is an indication that for a man who enters employment at the given age and salary and continues until age 65 at the same level taxable salary, benefits under title II are greater than those that could be purchased from private companies with the maximum employee tax. Likewise, when the percentage shown is above 6%, the indication is that greater benefits are provided under title II than could be purchased with the maximum tax paid by both the employee and his employer.

In concluding a review of the table it will be noted that in practically all cases the annual premium required is greater than 3% of wage. Therefore, to all practical intents and purposes it may be stated that these comparisons result in figures favorable to the liberality of the act as regards employees' taxes except in a few remote situations, viz., extremely young entrants with sustained high wages and the situation of taxation under multiple employment and high wages.

It should be emphasized that the discussion and comparison given herein is mainly theoretical due to several reasons, among them being:

1. Titles II and VIII have been used herein as interlocking. Actually, the legal position taken is that they are separate entities.
2. This outline has assumed a condition of level wages and continuous employment, neither of which experience will bear out in practice. This has a vital effect on the picture, since the insurance policy benefit accrues and is

finally determined according to the amount of premiums paid, such premiums being level throughout and uniform as to periodicity; the title II benefit accrues irregularly according to the actual payment of covered wages.

3. Insurance policy benefits may be obtained only under minimum premium rules. The present outline has assumed that the insurance policies could be purchased regardless of the size of premium.
4. The social security plan is in the nature of an "open end" arrangement since by section 1104, Congress may "alter, amend, or repeal any provision." The insurance policy is a closed contract.

ANNUAL PREMIUM REQUIRED TO DUPLICATE THE BENEFITS UNDER TITLE II FOR VARIOUS MONTHLY LEVEL WAGES AND AGES AT ENTRY, MALE LIVES AND RETIREMENT AT AGE 65

(Based on Rates Effective After July 1, 1938)

Age at entry	Annual premium required	Premium as % of wage	Annual premium required	Premium as % of wage	Annual premium required	Premium as % of wage
	<u>Level wage of \$25</u>		<u>Level wage of \$50</u>		<u>Level wage of \$75</u>	
15	\$21.38	7.13%	\$34.20	5.70%	\$47.02	5.22%
20	24.52	8.17	38.38	6.40	52.24	5.80
25	28.54	9.51	43.59	7.26	58.64	6.52
30	33.82	11.27	50.23	8.37	66.65	7.42
35	41.02	13.67	59.04	9.84	77.03	8.56
40	51.36	17.12	71.25	11.88	91.12	10.12
45	67.13	22.38	89.24	14.87	111.31	12.37
50	93.84	31.28	118.55	19.76	143.32	15.92
55	148.12	49.37	176.01	29.34	204.00	22.67
60	*	*	355.23	59.20	387.96	43.11
	<u>Level wage of \$100</u>		<u>Level wage of \$125</u>		<u>Level wage of \$150</u>	
15	\$55.56	4.63%	\$64.10	4.27%	\$72.63	4.04%
20	62.90	5.24	71.97	4.80	81.02	4.50
25	72.34	6.03	82.00	5.47	91.66	5.09
30	83.08	6.92	95.15	6.34	105.47	5.86
35	95.04	7.92	113.05	7.54	124.16	6.90
40	111.00	9.25	130.87	8.72	150.76	8.38
45	133.42	11.12	155.49	10.37	177.57	9.86
50	168.03	14.00	192.74	12.85	217.45	12.08
55	231.89	19.32	259.88	17.33	287.87	15.99
60	420.70	35.06	453.43	30.23	486.40	27.02
	<u>Level wage of \$200</u>		<u>Level wage of \$250</u>		<u>Level wage of \$500a/</u>	
15	\$89.71	3.74%	\$100.79	3.36%	\$143.36	2.39%
20	99.14	4.13	115.13	3.84	157.76	2.63
25	110.96	4.62	130.28	4.34	176.94	2.95
30	126.12	5.26	146.77	4.89	203.08	3.38
35	146.35	6.10	168.57	5.62	240.47	4.01
40	174.76	7.28	198.78	6.63	296.80	4.95
45	217.24	9.05	243.40	4.78 8.11	374.14	6.24
50	266.93	11.12	316.36	10.55	459.90	7.66
55	343.76	14.32	399.64	13.32	619.10	10.32
60	551.87	22.99	617.58	20.59	945.39	15.76

a/In order to be credited with a level wage of \$500 per month (\$6,000 per year) the individual must be employed by two employers at a salary of \$3,000 per year from each one over the entire period from the age at entry to age 65.

*Not eligible for monthly benefits because total wages are less than \$2,000.