## A COMPARISON OF SOCIAL SECURITY TAXES AND FEDERAL INCOME TAXES

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In recent years, with the implementation of the tax rate increases and ad hoc earnings base increases included in the 1977 Amendments to the Social Security Act, many observers have noted that Social Security taxes (for the Old-Age and Survivors Insurance, Disability Insurance, and Hospital Insurance programs combined) now exceed Federal income taxes for many families. The question has been raised about whether this is a new phenomenon. This Actuarial Note examines that question by comparing the Social Security taxes and Federal income taxes for single and married workers (without additional dependents) at three different wage levels for selected years from 1937, the first year of Social Security taxes, through 1980.

In passing, one should note that there is no inherent reason for Social Security taxes to be lower (or higher) than Federal income taxes. In many ways, these two forms of taxation are not comparable. Social Security taxes may be considered as payments for social-insurance protection (although this aspect should not be emphasized to the extent that such taxes are viewed as purchasing benefits on an individual-equity basis). Federal income taxes may be considered as payments for most other services and benefits provided by the government.

Tables 1, 2, and 3 present historical comparisons of Social Security employee taxes and Federal income taxes for workers at three wage levels—low, average, and maximum. These earnings levels are described in the footnotes to the tables. In the early years (1937-40), Social Security taxes exceeded Federal income taxes for married workers at all three wage levels and for all single workers except for those with wages near the taxable maximum. With the advent of World War II, Federal income taxes rose much more rapidly than Social Security taxes and continued at a high level, exceeding Social Security taxes for both single and married workers at the three wage levels in nearly every year through 1970.

In the 1970s, Federal income taxes decreased significantly for workers with low earnings, while Social Security taxes increased somewhat. For the single low earner, Federal income taxes remained above the Social Security taxes, except in 1977. For the married low earner, Federal income taxes were lower than Social Security taxes in every year. On the other hand, Social Security taxes were lower than Federal income taxes for both single and married workers with average or maximum earnings.

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Table 4 presents the Social Security employee taxes as a percentage of Federal income taxes for selected past years. After the 1950s, Social Security taxes rose as a percentage of Federal income taxes for low earners. For average and maximum earners, Social Security taxes rose until the mid-1970s, and then decreased through 1980. For maximum earners, Social Security taxes in 1980 were at a level roughly equal to that in 1970.

Table 5 presents the Social Security employee tax rates (for the OASI, DI, and HI programs combined) for selected past years. These rates applied to wages up to the taxable maximum and may be compared with Federal income taxes as a percentage of gross wages, displayed in Table 6.

In conclusion, while Social Security taxes have increased by large percentages since the early years of the program, Federal income taxes have also increased significantly. In recent years, Social Security taxes have actually decreased relative to Federal income taxes for workers with average or higher earnings. In the earliest years of the program, Social Security taxes exceeded income taxes for all types of workers considered in this Note, except for single high earners. In years since 1950, this situation has occurred only for the case of the married low earner (with one exception, 1977, for the single low earner).

Comparison of Social Security Employee Taxes and Federal Income Taxes for Worker with Low Earnings  $\underline{1}/$  (All figures rounded to nearest dollar)

Table 1

		Social	n 1 1 T	m. 01
		Security		come Tax 2/
<u>Year</u>	Wages	<u>Tax</u>	<u>Single</u>	Married 3/
1937	\$ 575	\$ 6	\$ 0*	\$ 0*
1940	598	6	0*	()*
1945	1011	10	95	12
1950	1272	19	93	0*
1955	1651	33	179	59
1960	2004	60	242	122
1965	2329	84	211	100
1970	3093	148	323	153
1971	3249	169	225	116*
1972	3567	185	229	. 109*
1973	3790	222	263	137*
1974	4015	235	306	174*
1975	4315	252	276	114*
1976	4613	270	298	72*
1977	4890	286	259*	0*
1978	5278	319	325	11*
1979	5740	352	373	46*
1980	6228	382	463	116*

<sup>\*</sup> Social Security tax exceeds Federal income tax.

<sup>1/</sup> Earnings equal to one-half of the national average as defined for wage-indexing purposes, extended back to 1937. Figure for 1980 is preliminary.

<sup>2/</sup> Assumes no income other than wages, standard deduction, and one exemption for single case, two for married.

<sup>3/</sup> Assumes spouse has no income and joint return is filed.

Table 2 Comparison of Social Security Employee Taxes and Federal Income Taxes for Worker with Average Earnings  $\underline{1}/$  (All figures rounded to nearest dollar)

		Social	Friend T	
		Security		ncome Tax 2/
<u>Year</u>	Wages	Tax	Single	Married 3/
1937	\$1151	\$ 12	\$ 0*	0*
1940	1195	12	7*	0*
1945	2021	20	302	202
1950	2544	38	289	185
1955	3301	66	486	359
1960	4007	120	625	485
1965	4659	169	615	451
1970	6186	297	917	695
1971	6497	338	848	634
1972	7134	371	916	682
1973	7580	443	1010	767
1974	8031	470	1105	853
1975	8631	505	1146	793
1976	9226	540	1160	816
1977	9779	572	1172	723
1978	10556	639	1348	859
1979	11479	704	1487	968
1980	12455	764	1717	1148

<sup>\*</sup> Social Security tax exceeds Federal income tax.

<sup>1/</sup> Earnings equal to the national average as defined for wage-indexing purposes, extended back to 1937. Figure for 1980 is preliminary.

 $<sup>\</sup>underline{2}/$  Assumes no income other than wages, standard deduction, and one exemption for single case, two for married.

<sup>3/</sup> Assumes spouse has no income and joint return is filed.

Table 3 Comparison of Social Security Employee Taxes and Federal Income Taxes for Worker with Maximum Earnings  $\underline{1}/$  (All figures rounded to nearest dollar)

		Social	n 1 1 T	m 2/
		Security		ncome Tax 2/
<u>Year</u>	Wages	Tax	<u>Single</u>	Married 3/
1937	\$3000	\$ 30	\$ 57	\$ 0*
1940	3000	30	72	19*
1945	3000	30	516	411
1950	3000	45	373	265
1955	4200	84	665	521
1960	4800	144	783	629
1965	4800	174	641	474
1970	7800	374	1265	985
1971	7800	406	1134	891
1972	9000	468	1331	1033
1973	10800	632	1698	1319
1974	13200	772	2217	1758
1975	14100	825	2361	1840
1976	15300	895	2501	1943
1977	16500	965	2907	2042
1978	17700	1071	3270	2336
1979	22900	1404	4041	3476
1980	25700	1588	5061	4316

<sup>\*</sup> Social Security tax exceeds Federal income tax.

<sup>1/</sup> Earnings equal the maximum taxable earnings base.

<sup>2/</sup> Assumes no income other than wages, standard deduction, and one exemption for single case, two for married.

<sup>3</sup>/ Assumes spouse has no income and joint return is filed.

Table 4

Social Security Employee Taxes as a Percentage of Federal Income Taxes

	Low Ea	arner 1/	Average	Earner 1/	Maximum	Earner 1/
<u>Year</u>	Single	Married	Single	Married	Single	Married
1937	*	*	*	*	52%	*
1940	*	*	162%	*	42	159%
1945	11%	84%	7	10%	6	7
1950	21	*	13	21	12	17
1955	18	56	14	18	13	16
1960	25	49	19	25	18	23
1965	40	84	27	37	27	37
1970	46	97	32	43	30	38
1971	75	146	40	53	36	46
1973	84	162	44	. 58	37	48
1974	77	135	43	55	35	44
1975	91	221	44	64	35	45
1976	91	375	47	66	36	46
1977	110	*	49	79	33	47
1978	98	2900	47	74	33	46
1979	94	765	47	73	35	40
1980	82	329	44	67	31	37

<sup>\*</sup> No Federal income tax payable.

 $<sup>\</sup>underline{1}$ / See Tables 1, 2, and 3 for definitions of the three earnings levels and the assumptions used to calculate the Federal income tax.

Table 5

Social Security Employee Taxes as a Percentage of Gross Wages up to the Maximum Taxable Earnings

Year	Tax Rate 1/
1937	1.0%
1940	1.0
1945	1.0
1950	1.5
1955	2.0
1960	3.0
1965	3.625
1970	4.8
1971	5.2
1972	5.2
1973	5.85
1974	5.85
1975	5.85
1976	5.85
1977	5.85
1978	6.05
1979	6.13
1980	6.13

<sup>1/</sup> For the Old-Age and Survivors Insurance (OASI), Disability Insurance (DI), and Hospital Insurance (HI) programs combined. Note that DI taxes began in 1957 and HI taxes began in 1966.

Table 6
Federal Income Taxes as a Percentage of Gross Wages

	Low Ea	erner 1/	Average	Earner 1/	Maximum	Earner 1/
<u>Year</u>	<u>Single</u>	Married	Single	Married	Single	Married
1937	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%
1940	0.0	0.0	0.6	0.0	2.4	0.6
1945	9.4	1.2	14.9	10.0	17.2	13.7
1950	7.3	0.0	11.4	7.3	12.4	8.8
1955	10.8	3.6	14.7	10.9	15.8	12.4
1960	12.1	6.1	15.6	12.1	16.3	13.1
1965	9.1	4.3	13.2	9.7	13.4	9.9
1970	10.4	4.9	14.8	11.2	16.2	12.6
1971	6.9	3.6	13.1	9.8	14.5	11.4
1972	6.4	3.1	12.8	9.6	14.8	11.5
1973	6.9	3.6	13.3	10.1	15.7	12.2
1974	7.6	4.3	13.8	10.6	16.8	13.3
1975	6.4	2.6	13.3	9.2	16.7	13.0
1976	6.5	1.6	12.6	8.8	16.3	12.7
1977	5.3	0.0	12.0	7.4	17.6	12.4
1978	6.2	0.2	12.8	8.1	18.5	13.2
1979	6.5	0.8	13.0	8.4	17.6	15.2
1980	7.4	1.9	13.8	9.2	19.5	16.7

 $<sup>\</sup>underline{1}$ / See Tables 1, 2, and 3 for definitions of the three earnings levels and the assumptions used to calculate the Federal income tax.