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## The Changing Distribution of the Burden of Federal Income Tax

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THE CHANGING DISTRIBUTION OF THE BURDEN OF FEDERAL INCOME TAX

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## THE CHANGING DISTRIBUTION OF THE BURDEN OF FEDERAL INCOME TAX

### Preface

Nearly all U.S. taxpayers whose income includes wage and salary earnings have in common the fact that they must pay both Federal Personal Income Taxes (unless income is very low) and Social Security Taxes on such income. Since both taxes are based on income, we believe that it is the distribution of the combined burden of the two taxes that should be taken into consideration in any proposal to change either or both taxes. Considered separately, the two taxes may appear to result in a desirable distribution of the burden when in reality the resulting combined distribution may be undesirable. It is difficult to believe that either the Congress or the people would support the current system of taxes if they were aware of the combined distribution.

This is the first of four papers which shows the distribution of the combined federal personal income and social security tax burden on various categories of taxpayers in 1977. The burden is projected to 1981 based on the changes made in the 1977 Social Security Tax Amendments and the changes in Federal personal income taxes resulting from the Revenue Act of 1978. The distribution of the combined burden is shown by income class for:

1. Single persons
2. Married couples with one worker and no children
3. Married couples with one worker and two children
4. Married couples with two workers and no children
5. Married couples with two workers and two children
6. Self-employed families of four

The size and distribution of the tax burden depends on the incidence of the social security taxes and on whether the burdens for the various brackets are measured in current dollars or in constant dollars. The theories of the incidence of taxes are not very satisfactory. Many (perhaps most) public finance economists believe that social security taxes paid by employers are shifted to employees. Many economists and most business men and the general public believe the tax burden falls on the employer. The size and the distribution of the combined tax burden depends on which theory we accept. The size and distribution of the burden also depends on whether or not we adjust for inflation. Taxpayers pay more personal income taxes when their money incomes rise even though their real incomes stay the same. Partly because some readers will prefer the use of current dollars while others prefer the use of constant dollars, and partly because of the broad (and perhaps increasing) interest in indexing, we are planning to present the distributions both ways.

In this first paper it is assumed that employees do not bear the burden (as employees) of that portion of the Social Security tax which is paid by employers. Furthermore, no adjustments have been made for inflation.

The other three papers in this series will repeat the analysis with variations as follows:

2. Assumes that the social security taxes paid by employers are borne by employees but does not adjust for inflation.
3. Assumes that the social security taxes paid by employers are not borne by employees but does adjust for inflation.
4. Assumes that the social security taxes paid by employers are borne by employees and does adjust for inflation.

## I. Introduction

Federal income taxes include the personal income tax which is progressive, and the Social Security Tax (SST), which is regressive. The personal income tax exempts much of lower incomes by permitting personal deductions and personal exemptions and taxes income above this level at progressive rates. The Social Security Tax permits no deductions or personal exemptions and taxes all "earned income" 1/ up to a certain level - called the maximum covered income - at proportionate rates.

Recent legislation has reduced personal income taxes on earned income by reducing rates, expanding income brackets, increasing personal exemptions, and increasing the earned income credit. Prior to these changes, SST rates and the maximum covered income were increased. The purpose of this paper is to analyze the effects of these changes on the distribution of the total income tax burden under the assumption that all income is earned income. Such an assumption would lead to overstating the tax burden if a considerable portion of income were from other sources. Unearned income rises both absolutely and relative to total income as total income rises. Table 1 shows the various sources of income as a percentage of adjusted gross income by size of adjusted gross income. Since we consider here only incomes up to \$75,000, the degree to which tax burdens are overstated should be quite small. Part II considers the changes brought about by the Social Security Tax Amendments of 1977. In our analysis we assume that employees bear the burden of that portion of the tax which they pay and do not, as employees, bear the burden of the employer's portion. Alternative assumptions will be left to another report.

Part III describes the Revenue Act of 1978 as it pertains to individuals and analyzes its effects. Throughout this paper we assume that individuals take the average amount of deductions for all taxpayers in their income class as published in the Statistics of Income 1974. In addition we have ignored the effects of inflation which moves taxpayers up to higher brackets without necessarily increasing their real incomes. This also will be considered in a later report. Six categories of taxpayers are considered:

- (1) single persons
- (2) married couples with no children, one worker
- (3) married couples without children, two workers
- (4) married couples with two children, one worker
- (5) married couples with two children, two workers
- (6) self employed families of four

Finally, Part IV examines the combined effect of the SST Amendments and the Revenue Act of 1978 on each category of taxpayer. The Appendix provides data to support the graphical presentations in Figures A through F.

## II. Social Security Tax Amendments of 1977

On December 20, 1977, in an effort to improve the current and projected financial condition of the OASDHI program President Carter signed into law the Social Security Amendments of 1977. The enactment of these amendments

TABLE 1  
 SOURCES OF INCOME AS A PERCENTAGE OF ADJUSTED GROSS INCOME  
 BY SIZE OF ADJUSTED GROSS INCOME 1974

Size of Adjusted Gross Income	Salaries and Wages as % of AGI	Self Employment Income <sup>1</sup> as % of AGI	Total Earned Income as % of AGI	Property Income <sup>2</sup> as % of AGI
\$1 - \$999	96.3	- 4.0	92.3	9.6
1000 - 1999	90.6	.8	91.4	8.2
2000 - 2999	83.9	2.5	86.4	10.8
3000 - 3999	80.6	3.0	83.6	11.8
4000 - 4999	82.4	2.9	85.3	10.6
5000 - 5999	84.2	3.2	87.4	9.3
6000 - 6999	84.2	3.3	87.5	8.6
7000 - 7999	86.3	4.1	90.4	7.2
8000 - 8999	88.6	3.2	91.8	6.4
9000 - 9999	88.0	3.6	91.6	6.4
10000 - 10999	90.4	3.3	93.7	5.0
11000 - 11999	90.2	3.4	93.6	5.0
12000 - 12999	90.9	3.4	94.3	4.8
13000 - 13999	91.6	3.3	94.9	4.3
14000 - 14999	91.7	3.7	95.4	3.9
15000 - 19999	91.0	4.0	95.0	4.5
20000 - 24999	87.9	5.7	93.6	5.6
25000 - 29999	82.8	8.4	91.2	8.1
30000 - 49999	89.5	17.1	86.6	12.5
50000 - 99999	52.6	26.0	78.6	19.9
100000 - 199999	42.7	23.4	66.1	30.5
200000 - 499999	29.2	19.2	48.4	46.0
500000 - 999999	18.2	12.2	30.4	63.0
1000000+	9.9	12.1	22.0	70.8

<sup>1</sup>Self employment income consists of the sum of the following:  
 Business and profession net profit or loss  
 Farm net profit or loss  
 Partnership net profit or loss  
 Small business net profit or loss

<sup>2</sup>Property income consists of the sum of the following:  
 Sales of capital assets (Net gain less Net loss)  
 Dividends  
 Interest  
 Rent (Net income less Net loss)

Source: Statistics of Income, Individual Returns, 1974, Internal Revenue Service, Table 1.4 p. 24.

Explanation of above classifications are contained in Section 6, p. 221.

was a culmination of an extended national debate on alternative ways to restore the financial integrity of the social security program. When Congress last enacted social security benefit and financing legislation in 1973, it was thought that the program was soundly financed in the short-run and expected to be sound over the long range future. By 1977, however, the program was projected to have a long range average annual deficit of 8.2% of taxable payroll. This expected deficit was the result of recent economic experience which has left us with both higher inflation and more unemployment than we experienced in most of the Post World War II period. The higher inflation led to indexing social security benefits to all beneficiaries. Also the greater unemployment has encouraged people, who lose their jobs and who are old enough to be eligible for benefits, to retire and thus add to the number of beneficiaries. Older people find it difficult to find new jobs even when we have full employment and the problem is aggravated by higher than normal unemployment. In addition, a lower fertility rate will result in a higher ratio of beneficiaries to workers than had previously been projected. In 1977 legislation was directed toward stabilizing the social security benefit structure, eliminating gender-based distinctions, and reestablishing the financial integrity of the system. 2/

Included in the changes brought about by the amendments were increases in the tax rates and increases in the maximum amount of earnings on which the tax is imposed (maximum covered income). Table 2 shows the scheduled increases and the maximum tax per worker. Tax rates are scheduled to increase to 7.65% for both employees and employers and to 10.75% for the self employed in 1990 and later years. The maximum covered income is scheduled to rise to \$22,900 in 1979, \$25,900 in 1980 and \$29,700 in 1981. After 1981, the base will be automatically adjusted to keep up with average wage levels. The resulting maximum tax per worker is scheduled to increase from \$965.25 in 1977 to \$1975.05 in 1981 for employees and from \$1303.50 to \$2762.10 for the self employed.

#### Effects of Social Security Amendments on Various Categories of Taxpayers:

The following discusses the effects of the changes in the payroll tax on various categories of taxpayers under the assumption that the employer does not shift to the employee the burden of that portion of the tax which he pays. A comparison will be drawn between the combined federal income tax and social security tax in 1977 to that of 1981 where only the social security tax changes have been incorporated.

#### Single Persons

Figure A illustrates the effect of the social security amendments on a single wage earner. Each curve shows the combined personal income tax and social security tax rate for money incomes up to \$75,000. The 1977 curve represents the situation prior to the enactment of the new social security law. The 1981a curve incorporates the change in the social security tax rate and maximum covered income for 1981 under the assumption of no change in federal personal income taxes from 1977.



Table 2. Social Security Taxes and Rates as of December 1977.

Year	Maximum Covered Income*	<u>Employer &amp; Employee Each</u>		<u>Self Employed</u>	
		Tax Rate	Maximum Tax per Worker	Tax Rate	Maximum Tax per Worker
1977	16,500	5.85	965.25	7.90	1303.50
1978	17,700	6.05	1070.85	8.10	1433.70
1979	22,900	6.13	1403.77	8.10	1854.90
1980	25,900	6.13	1587.67	8.10	2097.90
1981	29,700	6.65	1975.05	9.30	2762.10
1982	31,800	6.70	2130.60	9.35	2973.30
1983	33,900	6.70	2271.30	9.35	3169.65
1984	36,000	6.70	2412.00	9.35	3366.00
1985	38,100	7.05	2686.05	9.90	3771.90
1986	40,200	7.15	2874.30	10.0	4020.00
1987	42,600	7.15	3045.90	10.0	4260.00
1988-89	?	7.15		10.0	
1990 and after	?	7.65		10.75	

\*Note: Maximum Covered Income 1982-87 officially estimated

Source: Social Security Bulletin, March 1978.

Figure A

Combined Social Security and Federal Personal Income Tax for a Single Person

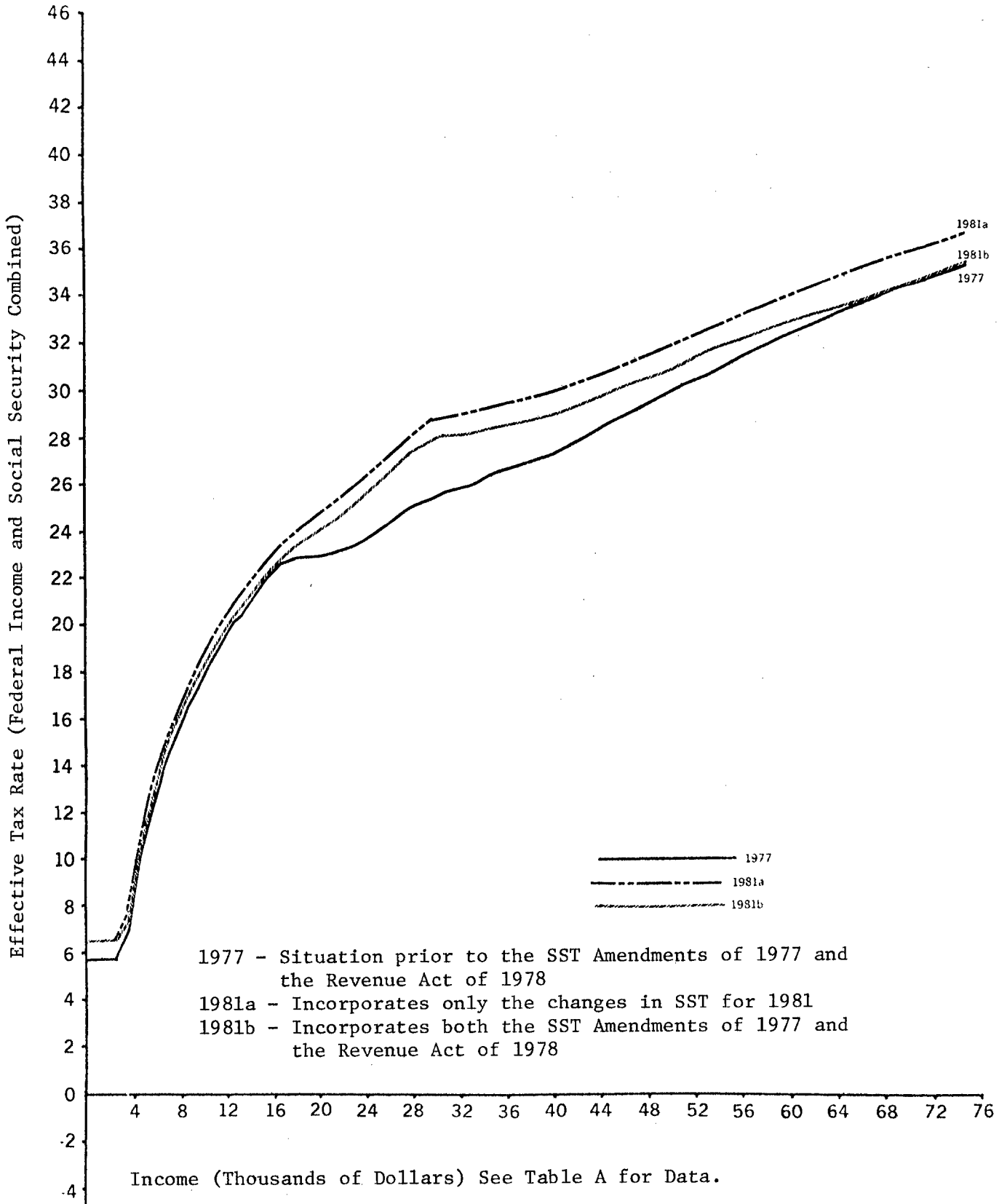


TABLE A:  
COMBINED SOCIAL SECURITY AND FEDERAL PERSONAL INCOME TAX RATES  
FOR A SINGLE PERSON

INCOME	1977 <sup>1</sup>	1981a <sup>2</sup>	1981b <sup>3</sup>
1500	5.85%	6.65%	6.65%
2500	5.85	6.65	6.65
3500	7.06	7.86	7.45
4500	10.26	11.06	10.43
5500	12.46	13.26	12.69
6500	14.06	14.86	14.53
7500	15.38	16.18	15.88
8500	16.49	17.29	17.03
9500	17.54	18.34	17.93
10,500	18.53	19.33	18.86
11,500	19.38	20.18	19.62
12,500	20.23	21.03	20.43
13,200	20.48	21.28	20.84
14,100	21.18	21.98	21.41
15,300	21.99	22.79	22.17
16,500	22.67	23.47	22.75
17,700	22.86	24.06	23.43
19,800	22.98	24.75	24.11
21,100	23.13	25.20	24.56
22,900	23.42	25.85	25.24
24,700	24.06	26.80	26.10
25,900	24.52	27.44	26.62
26,500	24.74	27.75	26.87
27,500	25.13	28.27	27.42
28,200	25.28	28.50	27.66
29,700	25.56	28.96	28.13
30,600	25.72	29.02	28.18
33,000	26.15	29.21	28.29
34,300	26.45	29.39	28.45
35,400	26.67	29.53	28.59
38,800	27.25	29.86	28.94
39,600	27.37	29.92	29.01
42,300	28.06	30.45	29.54
44,500	28.63	30.90	29.99
45,900	28.96	31.16	30.26
49,500	29.85	31.89	30.87
51,800	30.44	32.39	31.39
53,100	30.75	32.65	31.68
59,400	32.29	33.99	32.87
68,700	34.32	35.79	34.28
75,000	35.42	36.77	35.45

<sup>1</sup>Data taken from Appendix I.

<sup>2</sup>1981a incorporates Social Security Amendments of 1977 but not Revenue Act of 1978. Data taken from Appendix II.

<sup>3</sup>1981b incorporates both the Social Security Amendments of 1977 and the Revenue Act of 1978. Data taken from Appendix III.

In 1977, earned incomes ranging from \$2950 to \$16,500 were taxed highly progressively under the income tax and proportionately under the SST. The net effect was thus progressive. Single persons with incomes less than \$2950 paid no income tax hence the combined tax consisted solely of SST and was proportionate at the rate of 5.85%. For earners whose income was in excess of \$16,500 the regressivity of the social security tax offset somewhat the progressivity of the income tax resulting in a combined tax that was nearly proportionate for incomes between \$16,500 and \$23,000 and progressive (but less so than in the \$3,000 to \$16,000 range) for higher incomes. 3/

The SST amendments increase the SST rate and maximum covered income to 6.65% and \$29,700, respectively, for 1981. These changes affect the level of the combined rates (an increase of nearly 14%) and slightly reduce the progressivity of the rate structure for earned incomes less than or equal to \$16,500. Due to the increase in maximum covered income, the combined tax remains highly progressive, but less so, up to \$29,700 at which point the regressivity of the SST sets in and the combined taxes become still less progressive. Thus the largest effect takes place at incomes greater than \$20,000. It is interesting to note, however, that in 1977 more than 86% of all single person households earned less than \$15,000. (See Table 3) Thus, for the majority of single taxpayers the social security amendments result in an increase of .8 of a percentage point in their combined tax burden by 1981. The increase in burden on those with incomes below \$2950, those not subject to the personal income tax, is especially difficult to bear.

#### Married Couples, One Worker:

Figures B and C illustrate the effects of the new SST law on married couples where either husband or wife are working (but not both). The two figures differ due to the presence or absence of children. Since the SST does not allow for deductions, it treats both families identically. Thus any differences are due solely to federal personal income taxes which will be discussed later. As in Figure A the differences between the 1977 curves and the 1981a curves reflect the change in social security taxes.

One worker families are subject to the same social security taxes as are single persons. Thus the effects of the amendments of 1977 are the same in both cases. The combined rates increase by .8 of a percentage point for incomes up to \$16,500 while the progressivity of the rate schedule is slightly reduced. Due to the increase in the maximum covered income, (MCI) the largest increases in SST are borne by those whose incomes lie between \$16,500 (1977 MCI) and \$29,700 (1981 MCI). Within this range, the progressivity of the combined tax rate schedule is increased as well as the combined rates themselves. The regressivity of the SST sets in for incomes greater than \$29,700 and as a result the burden of the increased SST decreases as income increases beyond \$29,700.

Table 3 reveals that in 1977 over 57% of all two person households earned less than \$15,000. Over 33% earned incomes between \$15,000 and \$30,000. It is this one third that will bear the largest burden of the

Table 3. Number of Households and Percent by Income Class and Number of Persons in Household, 1977.

Income	Single Person Households		Two Person Households		Four Person Households	
	Number (thousands)	Percent of Total	Number (thousands)	Percent of Total	Number (thousands)	Percent of Total
Total	17,715	100.00	21,454	100.00	11,645	100.00
Less than \$4,000	5,822	34.83	1,779	8.29	433	3.72
\$4,000 - \$6,999	3,625	21.69	3,233	15.07	714	6.13
\$7,000 - \$9,999	2,401	14.36	3,080	14.36	848	7.28
\$10,000 - 14,999	2,629	15.73	4,258	19.85	2,023	17.37
\$15,000 - \$19,999	1,300	7.78	3,375	15.73	2,336	20.06
\$20,000 - \$24,999	445	2.66	2,401	11.19	1,987	17.06
\$25,000 - \$29,999	227	1.36	1,365	6.36	1,378	11.83
\$30,000 - \$49,999	190	1.14	1,575	7.34	1,532	13.16
\$50,000 and over	79	.47	389	1.81	395	3.39

Source: Current Population Reports: Consumer Income "Money Income in 1977 of Households in the U.S.," Table 7, p. 22.

Figure B

Combined Social Security and Federal Personal Income Tax for a One Worker, Two Person Family

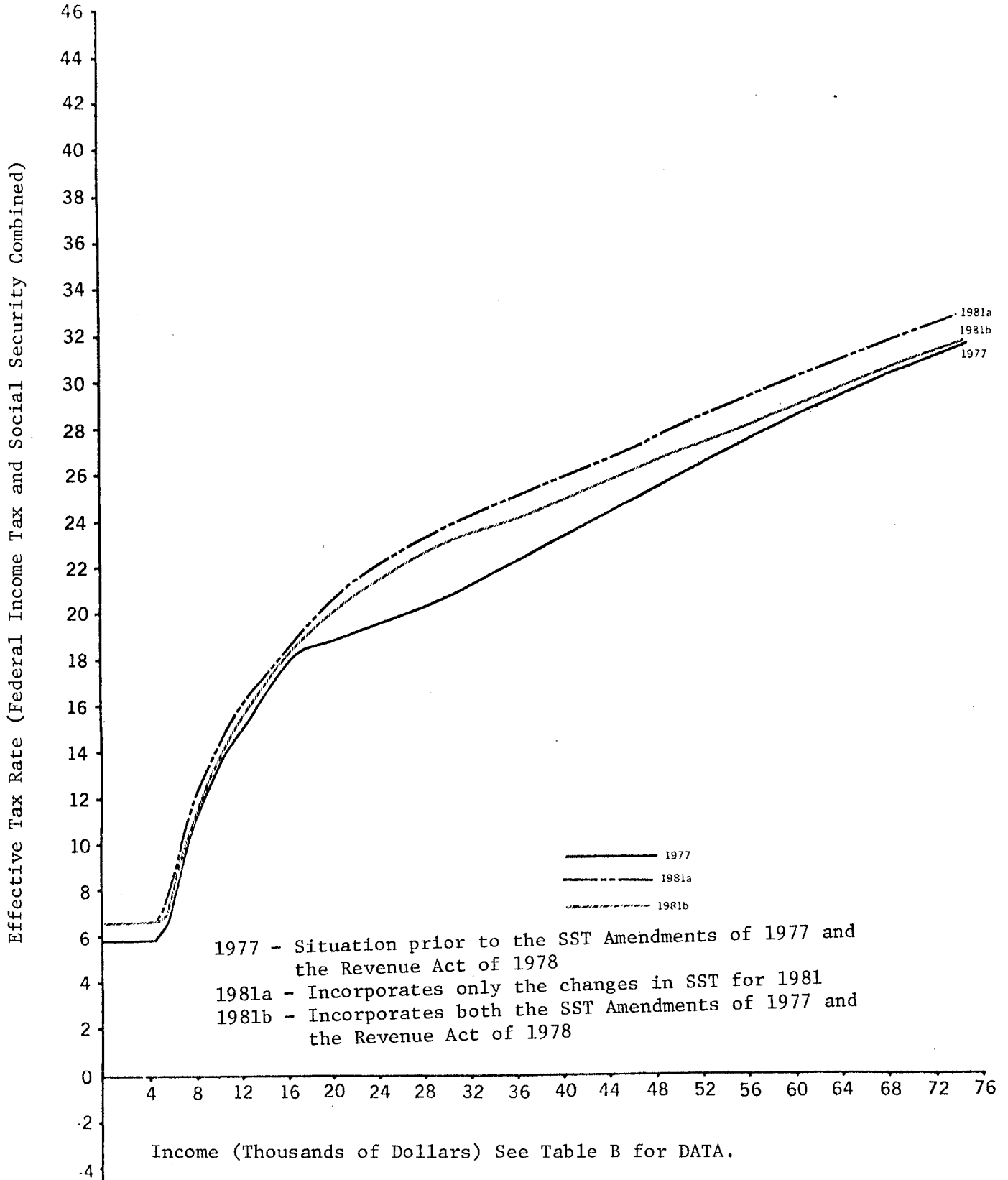


TABLE B:  
 COMBINED SOCIAL SECURITY AND FEDERAL PERSONAL INCOME TAX RATES  
 FOR A 1 WORKER, 2 PERSON FAMILY

INCOME	1977 <sup>1</sup>	1981a <sup>2</sup>	1981b <sup>3</sup>
1500	5.85%	6.65%	6.65%
2500	5.85	6.65	6.65
3500	5.85	6.65	6.65
4500	5.85	6.65	6.65
5500	6.61	7.41	6.90
6500	8.77	9.57	9.02
7500	10.49	11.29	10.57
8500	11.85	12.65	11.99
9500	12.97	13.77	13.11
10,500	13.91	14.71	14.19
11,500	14.68	15.48	15.10
12,500	15.34	16.14	15.87
13,200	15.85	16.65	16.33
14,100	16.55	17.35	16.91
15,300	17.43	18.23	17.75
16,500	18.19	18.99	18.47
17,700	18.52	19.71	19.09
19,800	18.83	20.60	20.07
21,100	19.00	21.08	20.52
22,900	19.39	21.82	21.08
24,700	19.66	22.40	21.71
25,900	19.82	22.74	22.08
26,500	19.95	22.96	22.25
27,500	20.18	23.32	22.53
28,200	20.34	23.57	22.72
29,700	20.66	24.06	23.26
30,600	20.84	24.14	23.36
33,000	21.48	24.54	23.60
34,300	21.80	24.75	23.71
35,400	22.06	24.91	23.92
38,800	22.96	25.57	24.53
39,600	23.16	25.71	24.66
42,300	23.87	26.26	25.24
44,500	24.43	26.69	25.77
45,900	24.79	26.99	26.08
49,500	25.72	27.76	26.80
51,800	26.34	28.29	27.21
53,100	26.68	28.58	27.42
59,400	28.26	29.96	28.85
68,700	30.29	31.76	30.53
75,000	31.51	32.85	31.70

<sup>1</sup>Data taken from Appendix I.

<sup>2</sup>1981a incorporates Social Security Amendments of 1977 but not Revenue Act of 1978. Data taken from Appendix II.

<sup>3</sup>1981b incorporates both the Social Security Amendments of 1977 and Revenue Act of 1978. Data taken from Appendix III.

Figure C

Combined Social Security and Federal Personal Income Tax for a One Worker Four Person Family

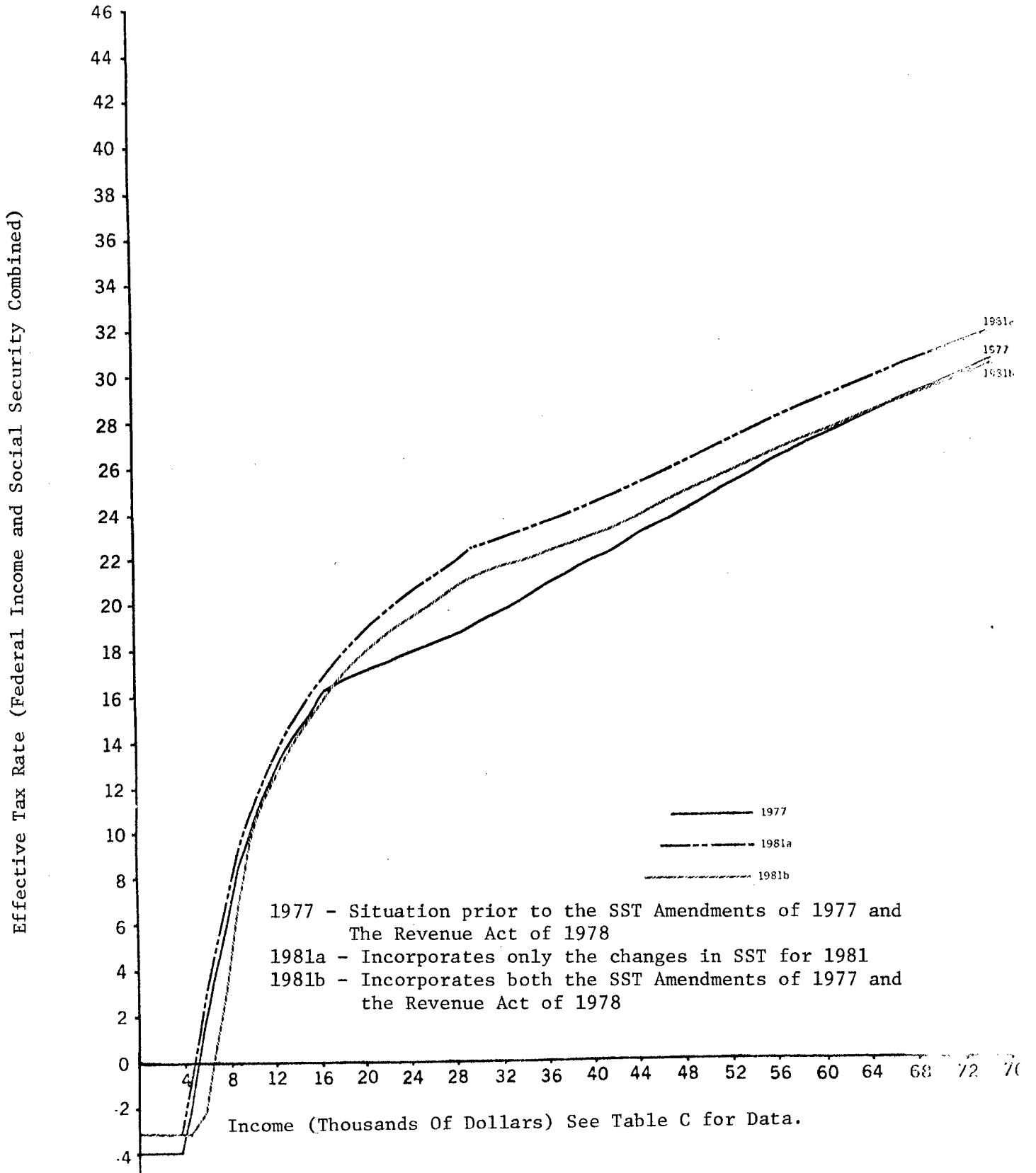




TABLE C:  
 COMBINED SOCIAL SECURITY AND FEDERAL PERSONAL INCOME TAX RATES  
 FOR A ONE WORKER FOUR PERSON FAMILY

INCOME	1977 <sup>1</sup>	1981a <sup>2</sup>	1981b <sup>3</sup>
1500	-4.15	-3.35	-3.35
2500	-4.15	-3.35	-3.35
3500	-4.15	-3.35	-3.35
4500	-1.93	-1.13	-3.35
5500	1.30	2.10	-2.44
6500	3.54	4.34	-.08
7500	5.78	6.58	2.67
8500	8.18	8.98	6.26
9500	9.65	10.45	9.09
10,500	10.96	11.76	10.97
11,500	12.17	12.97	11.99
12,500	13.19	13.99	12.99
13,200	13.80	14.60	13.60
14,100	14.38	15.18	14.31
15,300	15.27	16.07	15.12
16,500	16.19	16.99	15.92
17,700	16.49	17.69	16.72
19 800	16.94	18.71	17.70
21,100	17.23	19.30	18.25
22,900	17.57	20.00	18.96
24,700	17.96	20.70	19.51
25,900	18.20	21.12	19.92
26,500	18.31	21.32	20.14
27,500	18.48	21.62	20.49
28,200	18.64	21.87	20.72
29,700	19.04	22.44	21.19
30,600	19.27	22.57	21.26
33,000	19.84	22.90	21.66
34,300	20.23	23.17	21.85
35,400	20.53	23.38	22.00
38,800	21.46	24.06	22.62
39,600	21.68	24.23	22.79
42,300	22.38	24.77	23.31
44,500	23.01	25.28	23.83
45,900	23.38	25.58	24.20
49,500	24.36	26.40	25.06
51,800	24.95	26.90	25.55
53,100	25.33	27.23	25.80
59,400	26.99	28.69	27.20
68,700	29.13	30.60	29.10
75,000	30.45	31.79	30.26

<sup>1</sup>Data taken from Appendix I.

<sup>2</sup>1981a incorporates Social Security Amendments of 1977 but not Revenue Act of 1978. Data taken from Appendix II.

<sup>3</sup>1981b incorporates both the Social Security Amendments of 1977 and Revenue Act of 1978. Data taken from Appendix III.

SST increases among these two person households. Table 3 shows that in 1977 almost 50% of four person households earned incomes between \$15,000 and \$30,000 and it is this group that will bear the largest increase in burden among four person households.

Married Couple, Two Workers:

Table 4 gives family characteristics by income class. It is not surprising that the average number of workers per family is one or less for families whose incomes are less than \$10,000 and greater than one for families earning more than \$10,000. Thus families whose incomes are most affected by the social security tax amendments are predominantly two worker families.

In order to determine the effects of the SST legislation on two worker families we must make some assumption concerning the relative share of household income earned by each worker. In this analysis we have assumed that the income is split between earners on a one third, two thirds basis. <sup>4/</sup> Each worker must pay SST on his or her share of earned, family income. Thus for household incomes of less than \$16,500, (MCI), in 1977 the SST paid by a two worker household was identical to that paid by a one worker or single person household. If household income exceeded \$16,500 two worker families paid more SST than did one worker families. For household incomes between \$16,500 and \$24,750 one worker families paid the maximum tax of \$965.25 or 5.85% of \$16,500, while two worker families paid 5.85% of their total income since each worker's share was not greater than the MCI of \$16,500. For household incomes between \$24,750 and \$49,500 two worker families paid the maximum tax (\$965.25) plus 5.85% of one third of household income since this is still not greater than \$16,500, while one worker families paid only the maximum tax. For incomes in excess of \$49,500 two worker families paid twice the maximum tax since both workers' shares exceeded \$16,500. Thus the SST burden on two worker families is twice that on one worker families for the same level of household income if it equals or exceeds \$49,500.

The combined tax schedule for two worker families is illustrated in Figures D and E. Again, the difference between the two schedules is the result of the presence or absence of children which affects the federal personal income tax burden but not social security taxes. For two worker families the SST was proportionate for incomes up to \$24,750 in 1977 and regressive for higher incomes. In 1981 the SST will be proportionate (at a higher rate) for incomes up to \$44,550 beyond which it will become regressive. Thus the progressivity of the combined tax will be reduced since the part of the tax that is proportionate has been increased. Two worker families with incomes between \$24,750 and \$44,550 will bear the largest increase in absolute burden due to the SST changes. The increase in the relative burden decreases as income increases. A two worker family of four earning \$33,000 will experience an increase of 9.25% in the combined rate from 19.35% to 21.14% as a result of the SST increases from 1977 to 1981. The same family with an income of ~~\$10,000~~ <sup>75,000</sup> would experience an increase of 7.34% from 30.67% to 32.92%.

Table 4. Family Characteristics by Income.

Income	Mean Family Income	Avg # of Persons Per Family	Avg # of Children Per Family	Avg # of Earners Per Family
Under \$2,000	\$ 153	3.01	1.39	.75
\$2,000 - \$2,999	2,484	2.92	1.27	.62
\$3,000 - \$3,999	3,492	2.75	1.01	.53
\$4,000 - \$4,999	4,490	2.93	1.13	.67
\$5,000 - \$5,999	5,458	2.94	1.01	.79
\$6,000 - \$6,999	6,450	2.94	.97	.91
\$7,000 - \$7,999	8,442	3.03	.99	1.13
\$10,000 - \$14,999	12,436	3.23	1.10	1.50
\$15,000 - \$24,999	19,480	3.45	1.17	1.86
\$25,000 - \$49,999	32,220	3.71	1.06	2.39
\$50,000 and over	69,491	3.81	1.00	2.31

Source: Statistical Abstract of the U.S. 1978, Table 733, p. 454.

Figure D

Combined Social Security and Federal Personal Income Tax for a Two Worker,  
Two Person Family

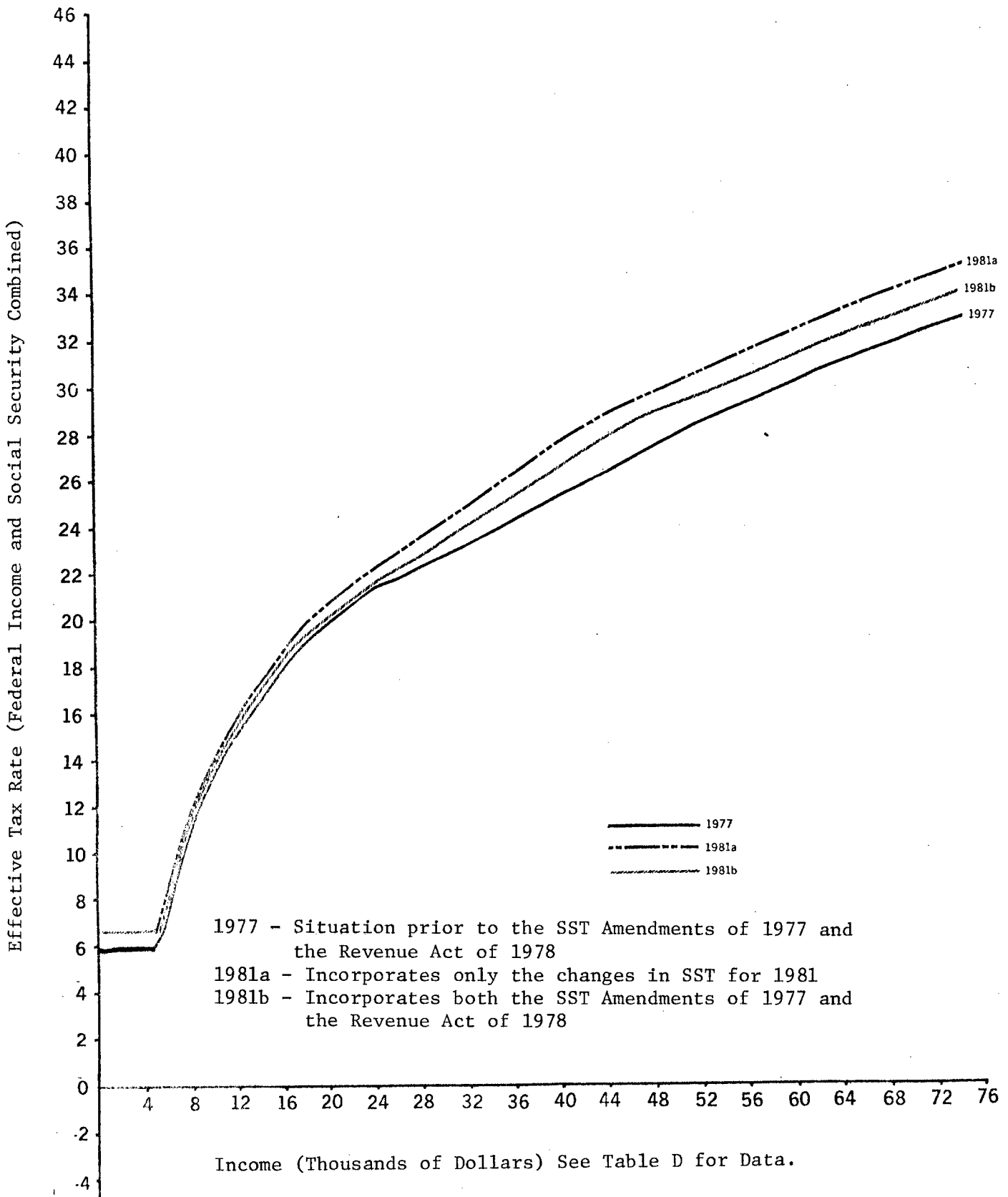


TABLE D:  
 COMBINED SOCIAL SECURITY AND FEDERAL PERSONAL INCOME TAX RATES  
 FOR A TWO WORKER, TWO PERSON FAMILY

INCOME	1977 <sup>1</sup>	1981a <sup>2</sup>	1981b <sup>3</sup>
1500	5.85	6.65	6.65
2500	5.85	6.65	6.65
3500	5.85	6.65	6.65
4500	5.85	6.65	6.65
5500	6.61	7.41	6.90
6500	8.77	9.57	9.02
7500	10.49	11.29	10.57
8500	11.85	12.65	11.99
9500	12.97	13.77	13.11
10,500	13.91	14.71	14.19
11,500	14.68	15.48	15.10
12,500	15.34	16.14	15.87
13,200	15.85	16.65	16.33
14,100	16.55	17.35	16.91
15,300	17.43	18.23	17.75
16,500	18.19	18.99	18.47
17,700	18.91	19.71	19.09
19,800	19.80	20.60	20.07
21,100	20.28	21.08	20.52
22,900	21.02	21.82	21.08
24,700	21.59	22.40	21.71
25,900	21.75	22.74	22.08
26,500	21.88	22.96	22.25
27,500	22.11	23.32	22.53
28,200	22.27	23.57	22.72
29,700	22.59	24.06	23.26
30,600	22.77	24.33	23.55
33,000	23.41	25.20	24.26
34,300	23.73	25.64	24.61
35,400	23.99	25.98	24.99
38,800	24.89	27.13	26.09
39,600	25.09	27.37	26.32
42,300	25.80	28.24	27.22
44,500	26.36	28.89	27.96
45,900	26.72	29.18	28.27
49,500	27.65	29.96	28.99
51,800	28.21	30.49	29.40
53,100	28.50	30.78	29.62
59,400	29.88	32.15	31.04
68,700	31.70	33.96	32.72
75,000	32.79	35.05	33.89

<sup>1</sup>Data taken from Appendix I.

<sup>2</sup>1981a incorporates Social Security Amendments of 1977 but not Revenue Act of 1978. Data taken from Appendix II.

<sup>3</sup>1981b incorporates both the Social Security Amendments of 1977 and Revenue Act of 1978. Data taken from Appendix III.

Figure E

Combined Social Security and Federal Personal Income Tax for a Two Worker Four Person Family

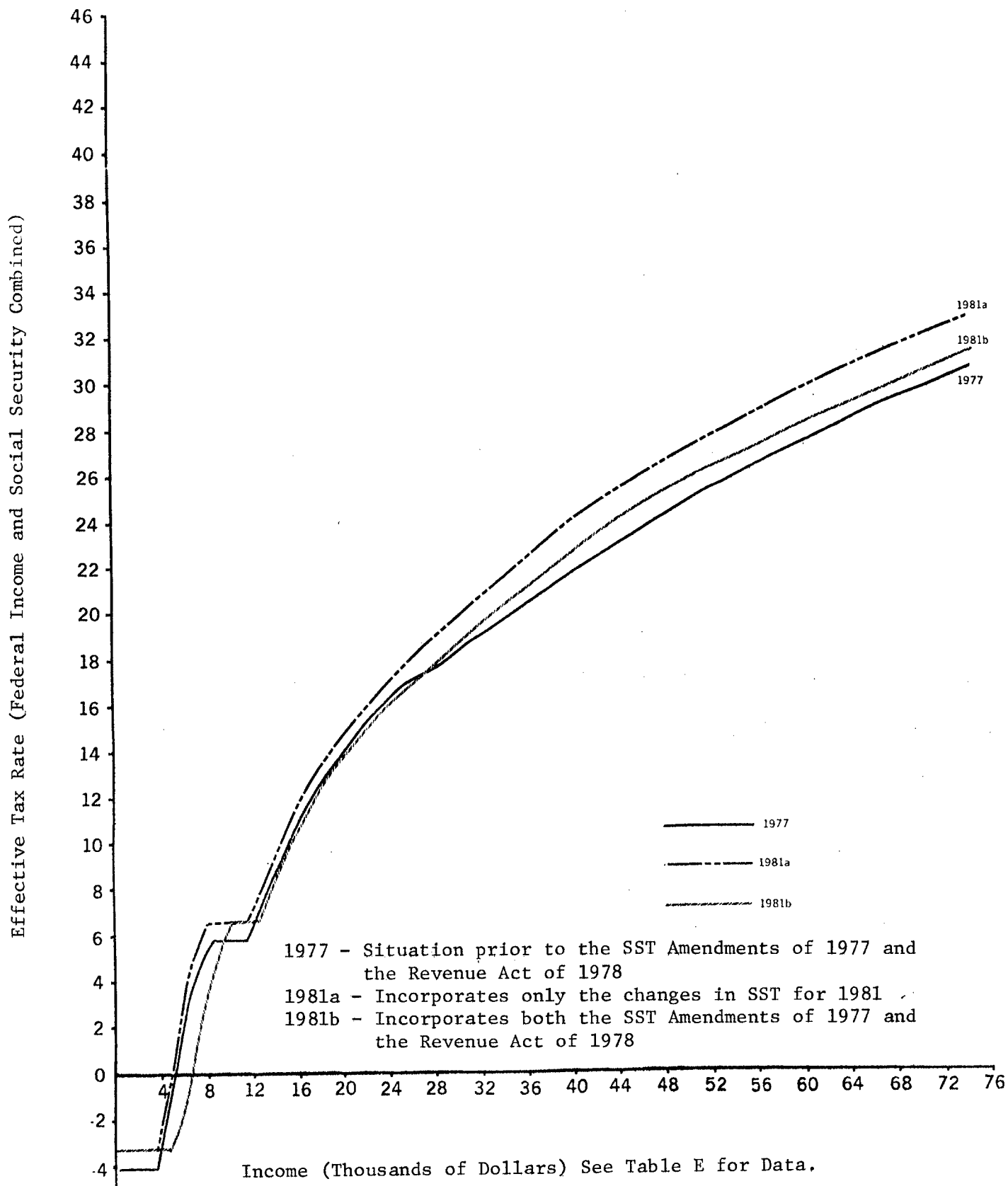


TABLE E:  
COMBINED SOCIAL SECURITY AND FEDERAL PERSONAL INCOME TAX RATES  
FOR A TWO WORKER, FOUR PERSON FAMILY

INCOME	1977 <sup>1</sup>	1981a <sup>2</sup>	1981b <sup>3</sup>
1500	-4.15	-3.35	-3.35
2500	-4.15	-3.35	-3.35
3500	-4.15	-3.35	-3.35
4500	-1.93	-1.13	-3.35
5500	1.30	2.10	-2.44
6500	3.54	4.34	-.08
7500	5.18	5.98	2.48
8500	5.85	6.65	4.44
9500	5.85	6.65	5.99
10,500	5.85	6.65	6.65
11,500	5.85	6.65	6.65
12,500	6.79	7.59	6.65
13,200	7.74	8.54	7.54
14,100	8.71	9.51	8.64
15,300	10.05	10.85	9.89
16,500	11.34	12.14	11.07
17,700	12.37	13.17	12.20
19,800	13.87	14.67	13.66
21,100	14.71	15.51	14.46
22,900	15.71	16.51	15.47
24,700	16.65	17.46	16.27
25,900	17.04	18.03	16.83
26,500	17.22	18.30	17.12
27,500	17.50	18.71	17.58
28,200	17.73	19.03	17.89
29,700	18.28	19.75	18.50
30,600	18.58	20.15	18.85
33,000	19.35	21.14	19.90
34,300	19.83	21.73	20.41
35,400	20.20	22.20	20.81
38,800	21.33	23.56	22.12
39,600	21.59	23.87	22.44
42,300	22.42	24.86	23.40
44,500	23.14	25.68	24.23
45,900	23.57	26.03	24.65
49,500	24.67	26.98	25.64
51,800	25.27	27.55	26.20
53,100	25.64	27.92	26.49
59,400	27.27	29.54	28.04
68,700	29.38	31.63	30.13
75,000	30.67	32.92	31.39

<sup>1</sup>Data taken from Appendix I.

<sup>2</sup>1981a incorporates Social Security Amendments of 1977 but not Revenue Act of 1978. Data taken from Appendix II.

<sup>3</sup>1981b incorporates both the Social Security Amendments of 1977 and Revenue Act of 1978. Data taken from Appendix III.

Figure F

Combined Social Security and Federal Personal Income For a Self Employed Four Person Family

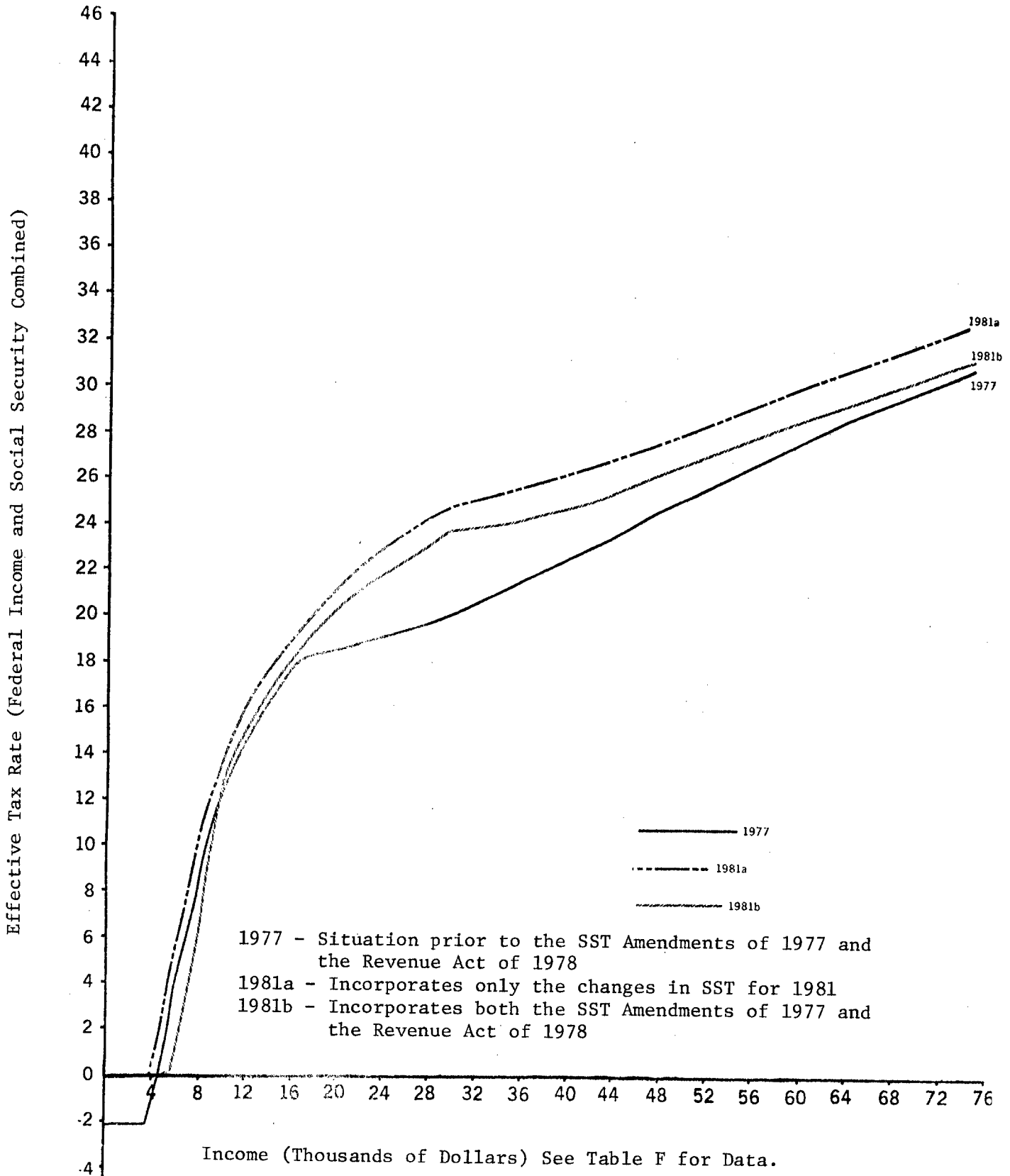




TABLE F:  
COMBINED SOCIAL SECURITY AND FEDERAL PERSONAL INCOME TAX RATES  
FOR A SELF EMPLOYED FOUR PERSON FAMILY

INCOME	1977 <sup>1</sup>	1981a <sup>2</sup>	1981b <sup>3</sup>
1500	-2.10	- .70	- .70
2500	-2.10	- .70	- .70
3500	-2.10	- .70	- .70
4500	.12	1.52	- .70
5500	3.35	4.75	.21
6500	5.59	6.99	2.57
7500	7.83	9.23	5.32
8500	10.23	11.63	8.91
9500	11.70	13.10	11.74
10,500	13.01	14.41	13.62
11,500	14.22	15.62	14.64
12,500	15.24	16.64	15.64
13,200	15.85	17.25	16.25
14,100	16.43	17.83	16.96
15,300	17.32	18.72	17.77
16,500	18.24	19.64	18.57
17,700	18.40	20.34	19.37
19,800	18.64	21.36	20.35
21,100	18.83	21.95	20.90
22,900	19.04	22.65	21.61
24,700	19.33	23.35	22.16
25,900	19.50	23.77	22.57
26,500	19.58	23.97	22.79
27,500	19.71	24.27	23.14
28,200	19.84	24.52	23.37
29,700	20.18	25.09	23.84
30,600	20.37	25.14	23.84
33,000	20.87	25.29	24.04
34,300	21.21	25.47	24.14
35,400	21.49	25.61	24.22
38,800	22.33	26.09	24.65
39,600	22.54	26.22	24.78
42,300	23.18	26.63	25.17
44,500	23.77	27.05	25.60
45,900	24.12	27.29	25.92
49,500	25.04	27.99	26.65
51,800	25.61	28.42	27.07
53,100	25.96	28.71	27.29
59,400	27.56	30.02	28.52
68,700	29.63	31.75	30.24
75,000	30.90	32.84	31.31

<sup>1</sup>Data taken from Appendix Table I.

<sup>2</sup>1981a incorporates Social Security Amendments of 1977 but not Revenue Act of 1978. Data taken from Appendix Table II.

<sup>3</sup>1981b incorporates both the Social Security Amendments of 1977 and Revenue Act of 1978. Data taken from Appendix Table III.

### Self Employed Family of Four:

Figure F illustrates the combined tax rate schedule for a family of four whose income is earned through self employment. Since the self employed are both employee and employer, the SST rate applied to their income differs from that of a wage earner. The maximum covered income, however, is the same. The SST rate for the self employed was 7.9% in 1977 and it is scheduled to increase to 9.3% by 1981 and eventually to 10.75% by 1990. <sup>5/</sup>

The scheduled increase in SST rates will produce a proportionate increase in combined tax rates of 1.4 percentage points for incomes up to \$16,500, thus reducing somewhat the overall progressivity in this range. Incomes between \$16,500 and \$29,700 will bear the largest absolute burden of the tax change. For an income of \$29,700 the resulting increase in the combined tax rate will be 24.33% from 20.18% to 25.09%. For an income of \$75,000 the increase will be 1.94 percentage points from 30.90% to 32.84% or a 6.28% increase. The points representing the maximum covered income in 1977 and 1981 are readily apparent in the 1977 and 1981a curves respectively as these points indicate where the regressivity of the social security tax sets in, resulting in a less progressive combined tax.

### Summary:

From this discussion of the effects of the SST amendments on various categories of taxpayers, it is apparent that it is not the increase in the social security tax rate that will burden taxpayers the most but rather the increase in the maximum covered income. It is families whose incomes lie between the old MCI and the new MCI who will experience the largest dollar increases in their combined tax burdens.

### III. The Revenue Act of 1978

This section highlights and explains those provisions of the Revenue Act of 1978 which primarily affect individual income taxes. These tax measures were passed by the 95th Congress in its last minute rush to adjournment. In particular, the effects of the following tax reductions and extensions will be analyzed:

1. Widening of brackets; rate cuts in certain brackets; increase in zero bracket amounts.

The tables in Appendix IV show the tax rate schedules prior to the Revenue Act of 1978 and the schedules resulting from the Act which went into effect for tax years beginning after 1978.

The number of income brackets was reduced from 26 to 17 for single persons and 16 for married individuals filing joint returns. Within certain brackets the marginal tax rate was reduced. For example, in 1978 a single person with a taxable income of \$8,000 paid a marginal tax rate of 21% on the excess over \$6,200 while in

1979 the same taxable income is subject to a marginal tax rate of 19% on the excess over \$6,500. The net reduction in taxes for this individual is \$91. In addition, the zero bracket amounts are increased from \$2,200 to \$2,300 for single taxpayers and from \$3,200 to \$3,400 for married taxpayers filing joint returns.

2. Increased Personal Exemption:

The exemption amount for a taxpayer, spouse, and each dependent increases from \$750 to \$1,000 for tax years beginning after 1978.

3. General Tax Credit:

The general tax credit, \$35 per capita, expires for tax years beginning after 1978.

4. Earned Income Credit:

For tax years beginning after 1978, the earned income credit becomes permanent, the maximum credit amount is increased and the credit computation is simplified. The credit, which goes to working low income taxpayers with dependents, previously equalled 10% of income up to \$4,000, and it was phased out gradually up to \$8,000. After 1978, the credit is an amount equal to 10% of the first \$5,000 of earned income. If, however, an individual's earned income or adjusted gross income exceeds \$6,000, the credit will be \$500 less 12.5% of the amount by which the individual's earned income (or, if higher, his adjusted gross income) exceeds \$6,000. Thus the credit is gradually reduced for incomes in excess of \$6,000, reaching zero for incomes of \$10,000 or more. In summary:

If earned income is:	The tax credit is:
0 - \$5000	10% of earned income
5000 - 6000	\$500
6000 - 10,000	\$500 - 12.5% of excess over \$6000
10,000 or more	0

Figures A - F illustrate the effects of these provisions on the various categories of taxpayers. The relevant curves are 1981a and 1981b. Recall that 1981a incorporates the SST amendments but assumes that no change in federal individual income taxes has taken place since 1977. 1981b also incorporates the SST increases but differs from 1981a in that the tax reductions and provisions of the Revenue Act of 1978 have been taken into account. Thus the distance between 1981a and 1981b represents the federal income tax reductions effective after 1978.

Single Person:

Figure A (p. 7) shows the effects of these changes on single taxpayers. Since single persons with incomes of \$2,200 or less paid no income taxes in 1977 and did not qualify for the earned income credit their combined tax burden

is proportionate and consists only of SST. This zero bracket amount was raised to \$2,300 for 1979 and later years. As income increases above \$2,300 the reduction in income taxes also increases. For example, a single person with a taxable income of \$8,500~~0~~ in 1981 would pay combined taxes of 17.29% or \$1,469.65 under the old law while the same individual would pay taxes of 17.03% or \$1,447.55 under the new law resulting in a reduction of 1.5% or \$22.10. A single person with a taxable income of \$75,000 will experience a reduction in income taxes of 3.59% or \$990. Although the Revenue Act of 1978 reduces somewhat the tax burden on single persons, it has little effect on the high degree of progressivity at lower to middle income levels (less than \$20,000) and it reduces the progressivity at high income levels (greater than \$60,000).

#### Married Couples Filing Jointly - No Children:

Curves 1981a and 1981b in Figures B, pg. 11, and D, p. 17, illustrate the effects of reductions in income taxes on a married couple who have no children or other dependents and who file joint returns. The resulting change is much the same as that for a single taxpayer with no effect in the proportionate range which consists solely of the SST since income taxes are zero for incomes below \$4,700 when the earned income credit is not available. This range is, however, broader for a married couple. Gradually increasing reductions in tax burden take place as income increases. The difference between Figures B and D is due to the presence or absence of more than one wage earner. Since couples filing jointly pay the same income taxes regardless of whether one or both parties earned the income the absolute differences in rates are the result of differential treatment under the Social Security Tax.

#### Married Couples With Two Children Who File Joint Returns:

Figures C, p. 13, E, p. 19, and F, p. 21, all show the tax burdens on four person families. Their income tax burden is lower than that of couples with no children since they can claim two additional dependents and they are eligible for the earned income credit. It is this tax credit which results in negative income tax rates on incomes below \$5,000. The Revenue Act of 1978 made this a permanent part of the tax law and at the same time increased the credit so that four person families do not pay any tax until income exceeds \$8,626. Figures C, E and F differ only as a result of Social Security Tax differences with the exception that Figure E, involving two workers, takes account of the Child and Dependent Care Credit available to parents both of whom work. It is assumed here that such families take the maximum credit available. It is this Child Care Credit which results in a proportionate or flat region in the tax schedule for incomes between about \$8,000 and \$12,000 (Figure E). In all three cases the new income tax law has no effect on families whose income is less than \$4,000. For income between about \$4,000 and \$8,000 the reductions in tax rates were larger for taxpayers with children than for those without. The average reduction is about four percentage points in this income bracket. Above \$8,000 the rate reductions diminish to roughly one percentage point until incomes exceed \$25,000 after which the rate reductions again begin to increase gradually.

Summary:

Married couples with children and low incomes (between \$4,500 and \$8,500, see Tables C, E and F) receive the most relief from the new income tax law. For single persons and married couples without children, the larger tax reductions go to those with the largest incomes. In all cases, taxpayers with incomes below \$4,000 receive no net reduction in their tax burden as the result of the Revenue Act of 1978.

IV. Combined Taxes in 1981 Under Current Laws:

This section combines the effects of both the Social Security Amendments of 1977 and the Revenue Act of 1978 on taxpayers in 1981. Thus the relevant schedule is represented in 1981b in Figures A through F. A comparison of 1981b to 1977 describes the net effect of changes in both tax laws.

Single Persons:

That group of taxpayers which has historically suffered most from high tax rates and highly progressive distribution of the tax burden is the single taxpayer - since 1948, at least, when income splitting was permitted for married couples. 1981b and 1977 in Figure A illustrate the net effects on this group. Single persons with incomes below \$3,000 will experience a net increase of 13.68% in their combined burden. Above \$3,000 the net increase gradually diminishes to .35% for an income of \$16,500. Above \$16,500 the increase rises to 10.05% at an income of \$29,700 and then diminishes to virtually no net change (.1%) at incomes in the \$70,000 range. A single person earning \$12,500 in 1981 will pay an additional \$25 in combined taxes over what he or she would have paid in 1977. The same individual earning \$29,700 will pay an additional \$763.29 while a single person earning \$75,000 will pay only \$22.50 additional combined taxes. The combined effects result in a slight reduction in the progressivity of the distribution at low incomes, an increase in progressivity between \$16,000 and \$30,000 and a reduction in the progressivity at high incomes.

Married Couple With No Children, One Worker:

The changes in the combined tax burden on married couples without children and with only one wage earner are similar to those of single persons with the exception of an additional personal exemption for income tax purposes. This additional deduction extends the proportionate range of the combined distribution beyond the \$4,000 income level to \$5,400 (\$2,000 of personal exemptions and \$3,400 of standard deduction). Married couples with incomes below this level will experience a net increase of .8 of a percentage point in their combined burden as is evidenced in Figure B. Between \$4,000 and \$16,500 the net increase in taxes is .05 of a percentage point or less with a minimum increase of .08 of a percentage point at an income of \$7,500. Beyond \$16,500 the net increase in tax burden rises to a maximum of 2.6 percentage points at an income of \$29,700 and then gradually decreases to an increase of .2 of a percentage point at an income of \$75,000. Thus here, as is the case for single persons, the largest increase in burden brought about by recent legislation falls on married couples whose incomes are between \$16,000 and \$50,000 which may well be considered middle income families by 1981.

Married Couples Without Children, Two Workers:

With the increased participation of women in the labor force, the average number of wage earners per family has increased. In particular, where there are no children, it is more likely that both husband and wife work. The effect of the second worker on the combined tax burden with given total income is due to Social Security taxes. Figure D illustrates the net increase in tax burden for a childless married couple when both parties work. If the couple's combined income is less than \$16,000, the net change is the same as that of a one worker married couple. If income exceeds \$16,500 but is less than \$28,200, the net increase remains less than .5 of a percentage point. Beyond \$28,200 the net increase rises to 1.6 percentage points at an income of \$44,500 and gradually decreases to a net increase of roughly 1 percentage point for incomes above \$52,000. Thus the maximum additional burden falls on couples whose combined income is at or near \$45,000.

Married Couples With Two Children, One Worker:

Where one or more children are present it is more common for only one party to work. Figure C illustrates the case of a four person family with one worker. The presence of dependent children allows the couple to take advantage of the earned income credit. This credit is obtainable in the absence of any federal income tax liability. In other words, couples whose income is below a specified limit actually receive a payment from the government in the form of a negative income tax. This explains the negative tax rates for families whose income is less than \$4,500 in 1977 or \$6,500 in 1981. Families with incomes below \$4,000 will experience a net increase in their combined tax rate of .8 of a percentage point by 1981 though the rate is negative for both 1977 and 1981. For example, a family in this class would have a combined tax rate of -3.35% in 1981 compared to a rate of -4.15% in 1977, a rise of .8 of a percentage point - i.e., the "refund" would be smaller. (See Table C.) Families with income above \$4,000 but below \$17,000 will experience a net decrease in their tax burden by 1981. The largest relief (3.74 percentage points) goes to families with incomes of \$5,500 since for these the decrease in Federal personal income taxes more than offsets the increase in Social Security taxes. If income exceeds \$17,000 the net change will be an increase in the combined tax rate which is directly related to income until it reaches a maximum of 2.15 percentage points at \$29,700. Beyond \$29,700 the net increase in combined rates gradually decreases and becomes a net decrease for income above \$68,000. Thus the very poor (less than \$4,000) will experience a net increase in their combined rate though it will still be negative, (See Figure C), the near poor (\$4,000 - \$17,000) will experience a net decrease, the middle income families (\$17,000 - \$50,000) will suffer from the largest increased burden while the rich (\$70,000 and above) will actually pay less taxes in 1981 than in 1977.

Married Couples With Two Children and Two Workers:

When both husband and wife work and there are dependent children, families are eligible for a Child and Dependent Care Credit against Federal income taxes. This, together with the increased Social Security taxes

paid by the additional worker result in the differences in tax burden between the one and two worker, four-person families. (See Figure E). Again families with very low incomes (less than \$4,000) will pay .8 of a percentage point more in 1981. Those whose incomes are between \$4,000 and \$9,000 will pay less, and between \$9,000 and \$12,000, slightly less. As income rises above \$27,000 the burden increases until families with incomes above \$40,000 will pay roughly 1 percentage point more in 1981 than in 1977.

Self Employed Family of Four:

One worker four person families and self employed four person families share different combined tax burdens as a result of different Social Security tax rates. (See Figure F). Under current law, a self employed family of four whose income is less than \$4,000 will pay an additional 1.4 percentage points in combined taxes in 1981 over that paid in 1977. If its income is \$5,500, it will pay 3.14 percentage points less. If its income is \$29,700 it will pay 3.66 percentage points more and finally if its income is \$75,000 it will pay only .4 of a percentage point more in 1981.

In summary, regardless of whether we are talking about single persons, married couples without children or married couples with children, the combined effect of the SST amendment of 1977 and the Revenue Act of 1978 is to increase the burden on the very poor, increase greatly the burden on middle income taxpayers and ever so slightly, increase and in certain cases decrease the burden on the rich. The distribution is still highly progressive in low to middle income classes and less progressive in the high income classes than was previously the case.

- 1/ Earned income consists of salaries and wages and self employment income which includes business and profession net profit or loss, farm net profit or loss, partnership net profit or loss, and small business corporation net profit or loss as these are the proprietor's incomes. Earned income, therefore excludes all property income such as rents, interest, dividends, and capital gains.
- 2/ John Snee and Mary Ross, "Social Security Amendments of 1977: Legislative History and Summary of Provisions," Social Security Bulletin, March 1978.
- 3/ The definition of progressivity in taxation is clear enough. If the ratio of the tax to income rises as income rises, the tax is progressive. The measurement of degree of progressivity is not as simple. There is no single correct method of measuring the degree of progressivity. The Musgraves present three methods of measuring the degree of progressivity.

1. The ratio of the change in the effective rate to the accompanying change in income or average rate progression:  

$$(T_1/Y_1 - T_0/Y_0) / (Y_1 - Y_0)$$
2. The ratio of the percentage change in taxes to the percentage change in income or liability progression:  

$$[(T_1 - T_0) / T_0] / [(Y_1 - Y_0) / Y_0]$$
3. The ratio of the percentage change in after tax income to the percentage change in before tax income or residual income progression:  

$$\frac{(Y_1 - T_1) - (Y_0 - T_0)}{Y_0 - T_0} / \frac{Y_1 - Y_0}{Y_0}$$

The degree of progressivity (or regressivity) may increase measured by one of these formulae while it decreases measured by another.

Example: (Tax rates taken from Table A, page 8)

A. <u>Income</u>	<u>a Progressive</u>		<u>a Proportional</u>		<u>Combined</u>	
	<u>Personal Income Tax rate</u>	<u>Tax</u>	<u>Social Security Tax rate</u>	<u>Tax</u>	<u>Tax</u>	<u>Tax Rate</u>
8,500	10.64	904.40	5.85	497.25	1401.65	16.49
16,500	16.82	2775.30	5.85	965.25	3740.55	22.67

B. <u>Income</u>	<u>Same Income Tax</u>		<u>a Proportional</u>		<u>Combined</u>	
	<u>rate</u>	<u>Tax</u>	<u>Social Security Tax rate</u>	<u>Tax</u>	<u>Tax</u>	<u>Tax Rate</u>
8,500	10.64	904.40	6.65	565.25	1469.65	17.29
16,500	16.82	2775.30	6.65	1097.25	3872.55	23.47

1. If we measure degree of progressivity by average rate progression, we find that the ratios are as follows:



$$\begin{aligned} \text{For A: } & (22.67\% - 16.49\%) / 8000 = 6.18\% / 8000 \\ \text{For B: } & (23.47\% - 17.29\%) / 8000 = 6.18\% / 8000 \end{aligned}$$

or the degree of progressivity of the two systems is the same.

2. If we measure by liability progression, the ratios are:

$$\text{For A: } [(3740.55 - 1401.65) / 1401.65] \div [(16,500 - 8,500) / 8500] = 1.773$$

$$\text{For B: } [(3872.55 - 1469.65) / 1469.65] \div [(16,500 - 8,500) / 8,500] = 1.737$$

Since  $1.737 < 1.773$ , tax system B is less progressive than tax system A.

3. If we measure by residual income progression the ratios are:

$$\text{For A: } \frac{(16,500 - 3,740.55) - (8,500 - 1,401.65)}{(8,500 - 1,401.65)} \div \frac{(16,500 - 8,500)}{8,500} = .8474$$

$$\text{For B: } \frac{(16,500 - 3,872.55) - (8,500 - 1,469.65)}{(8,500 - 1,469.65)} \div \frac{(16,500 - 8,500)}{8,500} = .8459$$

or tax system B is less progressive than tax system A. (See Richard A. and Peggy B. Musgrave, Public Finance in Theory and Practice, 1973, pp. 261-263. See specifically "If all liabilities are raised by an equal number of percentage points, average rate progression remains constant, while liability and residual income progression fall" p. 263. Throughout this paper the degree of progressivity is measured by liability progression.

<sup>4/</sup> This assumption was based on actual data on income distributions within two worker families provided by the Research Division of the Minnesota Department of Revenue.

<sup>5/</sup> In the case of two worker families there is an incentive toward self-employment when the combined income exceeds a certain level since although self-employed couples pay a higher SST rate, they do not pay taxes on income beyond the MCI. If both workers are wage earners, however, they pay SST on their combined income beyond the MCI since each worker's share of income must equal or exceed the MCI before the maximum SST is reached. Under our assumption of a 1/3, 2/3 split in 1977 self-employed couples paid less SST than did wage earning couples if their combined income exceeded \$22,282.05. In 1981 the incentive toward self-employment will set in at combined incomes in excess of \$41,535.34.

APPENDIX I

1977 Combined Taxes and Effective Tax Rates, Excluding Employer SST. Current Dollars  
(situation prior to SST Amendments of 1977 and Revenue Act of 1978)

ADJUSTED GROSS INCOME	SINGLE PERSON		MARRIED COUPLE FILING JOINTLY NO CHILDREN 1 WORKER		MARRIED COUPLE FILING JOINTLY NO CHILDREN 2 WORKERS		MARRIED COUPLE FILING JOINTLY 2 CHILDREN 1 WORKER		MARRIED COUPLE FILING JOINTLY 2 CHILDREN 2 WORKERS		MARRIED COUPLE FILING JOINTLY 2 CHILDREN SELF EMPLOYED	
	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE
1500.	88.	5.85	88.	5.85	88.	5.85	-62.	-4.15	-62.	-4.15	-31.	-2.10
2000.	146.	5.85	146.	5.85	146.	5.85	-104.	-4.15	-104.	-4.15	-53.	-2.10
3000.	247.	7.06	205.	5.85	205.	5.85	-145.	-4.15	-145.	-4.15	-74.	-2.10
4000.	462.	10.26	263.	5.85	263.	5.85	-87.	-1.93	-87.	-1.93	6.	3.35
5000.	635.	12.46	364.	6.61	364.	6.61	72.	1.30	72.	1.30	165.	3.35
6000.	914.	14.06	570.	8.77	570.	8.77	230.	3.54	230.	3.54	364.	5.59
7000.	1153.	15.38	787.	10.49	787.	10.49	434.	5.78	434.	5.78	588.	7.83
8000.	1432.	16.49	1007.	11.85	1007.	11.85	695.	8.18	695.	8.18	870.	10.23
9000.	1667.	17.54	1232.	12.97	1232.	12.97	917.	9.65	917.	9.65	1111.	11.70
10000.	1946.	18.53	1460.	13.91	1460.	13.91	1151.	10.96	1151.	10.96	1367.	13.01
11000.	2229.	19.36	1689.	14.68	1689.	14.68	1400.	12.17	1400.	12.17	1634.	14.22
12000.	2528.	20.23	1917.	15.34	1917.	15.34	1648.	13.19	1648.	13.19	1905.	15.24
13000.	2793.	20.48	2092.	15.85	2092.	15.85	1822.	13.80	1822.	13.80	2093.	15.85
14000.	2987.	21.16	2333.	16.55	2333.	16.55	2028.	14.38	2028.	14.38	2317.	16.43
15000.	3264.	21.99	2667.	17.43	2667.	17.43	2337.	15.27	2337.	15.27	2651.	17.32
16000.	3740.	22.67	3001.	18.19	3001.	18.19	2671.	16.19	2671.	16.19	3010.	18.24
17000.	4045.	22.86	3277.	18.52	3277.	18.52	2919.	16.49	2919.	16.49	3258.	18.40
18000.	4550.	22.98	3728.	18.83	3728.	18.83	3353.	16.94	3353.	16.94	3692.	18.64
19000.	4840.	23.13	4010.	19.00	4010.	19.00	3635.	17.23	3635.	17.23	3973.	18.83
20000.	5302.	23.42	4440.	19.39	4440.	19.39	4023.	17.57	4023.	17.57	4361.	19.04
21000.	5942.	24.06	4856.	19.66	4856.	19.66	4436.	17.96	4436.	17.96	4774.	19.33
22000.	6349.	24.52	5133.	19.82	5133.	19.82	4713.	18.20	4713.	18.20	5051.	19.50
23000.	6956.	24.74	5287.	19.95	5287.	19.95	4851.	18.31	4851.	18.31	5190.	19.58
24000.	6910.	25.13	5551.	20.18	5551.	20.18	5082.	18.48	5082.	18.48	5421.	19.71
25000.	7128.	25.28	5737.	20.34	5737.	20.34	5257.	18.64	5257.	18.64	5595.	19.84
26000.	7593.	25.56	6136.	20.66	6136.	20.66	5656.	19.04	5656.	19.04	5995.	20.18
27000.	7870.	25.72	6376.	20.84	6376.	20.84	5896.	19.27	5896.	19.27	6234.	20.37
28000.	8630.	26.15	7087.	21.48	7087.	21.48	6547.	19.84	6547.	19.84	6886.	20.87
29000.	9071.	26.45	7478.	21.80	7478.	21.80	6938.	20.23	6938.	20.23	7276.	21.21
30000.	9442.	26.67	7838.	22.05	7838.	22.05	7268.	20.53	7268.	20.53	7607.	21.49
31000.	10574.	27.25	9110.	22.95	9110.	22.95	8325.	21.46	8325.	21.46	8653.	22.33
32000.	10837.	27.37	9336.	23.10	9336.	23.10	8586.	21.68	8586.	21.68	8924.	22.54
33000.	11869.	28.06	10314.	23.87	10314.	23.87	9467.	22.38	9467.	22.38	9805.	23.18
34000.	12748.	28.63	10869.	24.43	10869.	24.43	10239.	23.01	10239.	23.01	10577.	23.77
35000.	13292.	28.96	11378.	24.79	11378.	24.79	10731.	23.38	10731.	23.38	11069.	24.12
36000.	14774.	29.85	12733.	25.72	12733.	25.72	12056.	24.36	12056.	24.36	12397.	25.04
37000.	15767.	30.44	13645.	26.34	13645.	26.34	12925.	24.95	12925.	24.95	13264.	25.61
38000.	16527.	30.75	14168.	26.68	14168.	26.68	13443.	25.33	13443.	25.33	13787.	25.96
39000.	19179.	32.29	16785.	28.26	16785.	28.26	16035.	26.99	16035.	26.99	16373.	27.56
40000.	23575.	34.32	20611.	30.29	20611.	30.29	20116.	29.13	20116.	29.13	20354.	29.63
41000.	26566.	35.42	23630.	31.51	23630.	31.51	22835.	30.45	22835.	30.45	23173.	30.90

APPENDIX II

1981 Combined Taxes and Effective Tax Rates, Excluding Employer SST, Current Dollars  
(incorporating SST Amendments of 1977 but not Revenue Act of 1978)

ADJUSTED GROSS INCOME	SINGLE PERSON		MARRIED COUPLE FILING JOINTLY NO CHILDREN 1 WORKER		MARRIED COUPLE FILING JOINTLY NO CHILDREN 2 WORKERS		MARRIED COUPLE FILING JOINTLY 2 CHILDREN 1 WORKER		MARRIED COUPLE FILING JOINTLY 2 CHILDREN 2 WORKERS		MARRIED COUPLE FILING JOINTLY 2 CHILDREN SELF EMPLOYED	
	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE
1500.	100.	6.65	100.	6.65	100.	6.65	50.	-3.35	50.	-3.35	11.	-.79
2500.	166.	6.65	166.	6.65	165.	6.65	84.	-3.35	84.	-3.35	18.	-.79
3500.	275.	7.86	233.	5.65	233.	6.65	117.	-3.35	117.	-3.35	25.	-1.52
4500.	438.	9.73	299.	6.65	299.	6.65	151.	-1.13	151.	-1.13	32.	4.75
5500.	622.	11.29	403.	7.41	403.	7.41	185.	2.10	185.	2.10	39.	6.99
6500.	847.	12.89	527.	8.13	527.	8.13	222.	5.34	222.	5.34	46.	9.23
7500.	1107.	16.18	672.	11.29	672.	11.29	262.	8.58	262.	8.58	53.	11.53
8500.	1470.	17.29	847.	12.65	847.	12.65	305.	10.45	305.	10.45	60.	13.10
9500.	1743.	18.74	1075.	13.77	1075.	13.77	351.	11.76	351.	11.76	67.	14.41
10500.	2029.	19.73	1308.	14.71	1308.	14.71	399.	12.97	399.	12.97	74.	15.62
11500.	2321.	20.18	1544.	15.48	1544.	15.48	449.	13.99	449.	13.99	81.	16.54
12500.	2621.	21.03	1781.	16.14	1781.	16.14	494.	14.60	494.	14.60	88.	17.25
13500.	2929.	21.83	2017.	16.65	2017.	16.65	541.	15.18	541.	15.18	95.	17.83
14500.	3244.	21.98	2258.	17.35	2258.	17.35	589.	16.07	589.	16.07	102.	18.72
15500.	3567.	23.79	2496.	18.23	2496.	18.23	638.	16.99	638.	16.99	109.	19.64
16500.	3897.	23.47	2739.	18.99	2739.	18.99	688.	17.69	688.	17.69	116.	20.34
17500.	4234.	24.96	3089.	19.71	3089.	19.71	739.	18.71	739.	18.71	123.	21.36
18500.	4577.	24.75	3446.	20.60	3446.	20.60	791.	19.80	791.	19.80	130.	21.95
19500.	4926.	25.30	3809.	21.58	3809.	21.58	844.	20.99	844.	20.99	137.	23.35
20500.	5281.	25.65	4178.	22.62	4178.	22.62	898.	21.12	898.	21.12	144.	23.97
21500.	5642.	26.80	4553.	22.40	4553.	22.40	953.	21.32	953.	21.32	151.	24.52
22500.	6009.	27.44	4934.	22.96	4934.	22.96	1009.	22.44	1009.	22.44	158.	25.14
23500.	6382.	27.75	5321.	23.32	5321.	23.32	1066.	22.57	1066.	22.57	165.	25.29
24500.	6761.	28.27	5714.	23.96	5714.	23.96	1124.	23.17	1124.	23.17	172.	25.47
25500.	7146.	28.50	6114.	24.91	6114.	24.91	1183.	23.58	1183.	23.58	179.	25.61
26500.	7537.	28.96	6521.	25.57	6521.	25.57	1243.	24.06	1243.	24.06	186.	26.09
27500.	7934.	29.02	6934.	26.71	6934.	26.71	1304.	24.23	1304.	24.23	193.	26.22
28500.	8337.	29.02	7353.	26.26	7353.	26.26	1366.	24.77	1366.	24.77	200.	26.63
29500.	8746.	29.31	7778.	26.69	7778.	26.69	1429.	25.28	1429.	25.28	207.	27.05
30500.	9161.	29.31	8209.	26.95	8209.	26.95	1493.	25.58	1493.	25.58	214.	27.29
31500.	9592.	29.31	8646.	27.26	8646.	27.26	1558.	26.03	1558.	26.03	221.	27.99
32500.	10029.	31.16	9089.	27.76	9089.	27.76	1624.	26.40	1624.	26.40	228.	28.42
33500.	10472.	31.89	9537.	28.29	9537.	28.29	1691.	26.93	1691.	26.93	235.	28.71
34500.	10921.	32.39	9990.	28.58	9990.	28.58	1759.	27.23	1759.	27.23	242.	28.71
35500.	11376.	32.65	10449.	29.96	10449.	29.96	1828.	28.69	1828.	28.69	249.	30.02
36500.	11837.	33.99	10924.	31.75	10924.	31.75	1898.	30.60	1898.	30.60	256.	31.75
37500.	12304.	35.79	11405.	32.65	11405.	32.65	1969.	31.79	1969.	31.79	263.	31.75
38500.	12777.	36.77	11892.	32.65	11892.	32.65	2041.	31.79	2041.	31.79	270.	32.84

APPENDIX III

1981 Combined Taxes and Effective Tax Rates, Excluding Employer SST, Current Dollars  
(incorporating both SST Amendments of 1977 and Revenue Act of 1978)

ADJUSTED GROSS INCOME	SINGLE PERSON		MARRIED COUPLE FILING JOINTLY NO CHILDREN 1 WORKER		MARRIED COUPLE FILING JOINTLY NO CHILDREN 2 WORKERS		MARRIED COUPLE FILING JOINTLY 2 CHILDREN 1 WORKER		MARRIED COUPLE FILING JOINTLY 2 CHILDREN 2 WORKERS		MARRIED COUPLE FILING JOINTLY 2 CHILDREN SELF EMPLOYED	
	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE	TAX	RATE
1000.	100.	6.65	100.	6.65	100.	6.65	-50.	-3.35	-50.	-3.35	-11.	-70
2500.	166.	6.65	166.	6.65	166.	6.65	-84.	-3.35	-84.	-3.35	-18.	-70
3500.	261.	7.45	233.	6.65	233.	6.65	-117.	-3.35	-117.	-3.35	-25.	-70
4500.	469.	10.43	299.	6.65	299.	6.65	-151.	-3.35	-151.	-3.35	-32.	-70
5500.	698.	12.69	360.	6.90	360.	6.90	-134.	-2.44	-134.	-2.44	12.	21
6500.	944.	14.53	585.	9.02	586.	9.02	-5.	-.08	-5.	-.08	167.	2.57
7500.	1191.	15.82	793.	10.57	793.	10.57	200.	2.67	186.	2.48	399.	5.32
8500.	1447.	17.03	1019.	11.99	1019.	11.99	532.	6.26	378.	4.44	757.	8.91
9500.	1704.	18.24	1246.	13.11	1246.	13.11	863.	9.09	569.	5.99	1115.	11.74
10500.	1960.	18.86	1490.	14.19	1490.	14.19	1152.	10.97	698.	6.65	1431.	13.62
11500.	2257.	19.62	1737.	15.10	1737.	15.10	1379.	11.99	765.	6.65	1684.	14.64
12500.	2554.	20.43	1983.	15.87	1983.	15.87	1623.	12.99	831.	6.65	1955.	15.64
13200.	2751.	20.84	2156.	16.33	2156.	16.33	1736.	13.60	996.	7.54	2146.	16.25
14100.	3018.	21.41	2384.	16.91	2384.	16.91	2018.	14.31	1218.	8.64	2391.	16.95
15300.	3362.	22.17	2715.	17.75	2715.	17.75	2313.	15.12	1513.	9.89	2719.	17.77
16500.	3754.	22.75	3047.	18.47	3047.	18.47	2627.	15.92	1827.	11.27	3064.	18.57
17700.	4146.	23.43	3379.	19.09	3379.	19.09	2959.	16.72	2159.	12.20	3428.	19.37
19300.	4773.	24.11	3973.	20.07	3973.	20.07	3504.	17.70	2704.	13.66	4029.	20.35
21100.	5182.	24.56	4330.	20.52	4330.	20.52	3850.	18.25	3050.	14.46	4409.	20.90
22300.	5760.	25.24	4627.	21.08	4627.	21.08	4342.	18.96	3542.	15.47	4949.	21.61
24700.	6447.	26.10	5362.	21.71	5362.	21.71	4818.	19.51	4018.	16.27	5473.	22.16
25800.	6895.	26.62	5719.	22.08	5719.	22.08	5159.	19.92	4359.	16.83	5855.	22.57
27500.	7426.	26.97	5997.	22.25	5997.	22.25	5337.	20.14	4537.	17.12	6049.	22.79
28200.	7631.	27.42	6195.	22.53	6195.	22.53	5635.	20.49	4835.	17.58	6364.	23.14
29700.	8354.	28.13	6907.	23.26	6907.	23.26	6294.	21.19	5494.	18.50	7081.	23.84
30600.	8624.	28.18	7147.	23.36	7207.	23.55	6507.	21.26	5767.	18.85	7294.	23.84
33300.	9337.	28.29	7787.	23.60	8096.	24.26	7147.	21.66	6566.	19.90	7934.	24.04
34300.	9760.	28.45	8134.	23.71	8449.	24.61	7494.	21.85	7009.	20.41	8281.	24.14
35400.	10122.	28.59	8466.	23.92	8846.	24.99	7788.	22.00	7367.	20.31	8575.	24.22
38300.	11229.	28.94	9516.	24.53	10124.	26.39	8778.	22.62	8584.	22.12	9565.	24.65
39500.	11496.	29.61	9766.	24.66	10424.	26.32	9026.	22.79	8884.	22.44	9813.	24.76
42300.	12494.	29.54	10675.	25.24	11313.	27.22	9860.	23.31	9698.	23.40	10647.	25.17
46500.	13348.	29.99	11466.	25.77	12442.	27.96	10606.	23.83	10782.	24.23	11393.	25.60
49900.	13889.	30.26	11969.	26.08	12976.	28.27	11109.	24.20	11316.	24.65	11896.	25.92
49500.	15279.	30.87	13265.	26.80	14351.	28.99	12405.	25.05	12691.	25.64	13192.	26.65
51000.	16261.	31.39	14093.	27.21	15239.	29.40	13230.	25.55	13570.	26.20	14020.	27.07
53100.	16621.	31.68	14562.	27.42	15727.	29.62	13702.	25.80	14367.	26.49	14489.	27.29
59400.	19523.	32.67	17135.	28.85	18438.	31.04	16155.	27.20	16658.	28.04	16942.	28.52
58700.	23552.	34.28	20971.	30.53	22479.	32.72	19931.	29.10	20699.	30.13	20778.	30.24
75000.	26591.	35.45	23774.	31.70	25420.	33.89	22694.	30.26	23540.	31.39	23481.	31.31

## Appendix IV: 1977-78 SCHEDULE X: SINGLE TAXPAYERS

TAXABLE INCOME		PAY	+	TAX RATE	ON EXCESS OVER
OVER	NOT OVER				
0	\$ 2,200	0		0	0
\$ 2,200	2,700	0		14%	\$ 2,200
2,700	3,200	\$ 70		15	2,700
3,200	3,700	145		16	3,200
3,700	4,200	225		17	3,700
4,200	6,200	310		19	4,200
6,200	8,200	690		21	6,200
8,200	10,200	1,110		24	8,200
10,200	12,200	1,590		25	10,200
12,200	14,200	2,090		27	12,200
14,200	16,200	2,630		29	14,200
16,200	18,200	3,210		31	16,200
18,200	20,200	3,830		34	18,200
20,200	22,200	4,510		36	20,200
22,200	24,200	5,230		38	22,200
24,200	28,200	5,990		40	24,200
28,200	34,200	7,590		45	28,200
34,200	40,200	10,290		50	34,200
40,200	46,200	13,290		55	40,200
46,200	52,200	16,590		60	46,200
52,200	62,200	20,190		62	52,200
62,200	72,200	26,390		64	62,200
72,200	82,200	32,790		66	72,200
82,200	92,200	39,390		68	82,200
92,200	102,200	46,190		69	92,200
102,200	....	53,090		70	102,200

## 1979 SCHEDULE X: SINGLE TAXPAYERS

TAXABLE INCOME		PAY	+	TAX RATE	ON EXCESS OVER
OVER	NOT OVER				
0	\$ 2,300	0		0	0
\$ 2,300	3,400	0		14%	\$ 2,300
3,400	4,400	\$ 154		16	3,400
4,400	6,500	314		18	4,400
6,500	8,500	692		19	6,500
8,500	10,800	1,072		21	8,500
10,800	12,900	1,555		24	10,800
12,900	15,000	2,059		26	12,900
15,000	18,200	2,605		30	15,000
18,200	23,500	3,565		34	18,200
23,500	28,800	5,367		39	23,500
28,800	34,100	7,434		44	28,800
34,100	41,500	9,766		49	34,100
41,500	55,300	13,392		55	41,500
55,300	81,800	20,982		63	55,300
81,800	108,300	37,677		68	81,800
108,300	.....	55,697		70	108,300

† 1977-78 SCHEDULE Y: MARRIED FILING JOINTLY

TAXABLE INCOME		PAY +	TAX RATE	ON EXCESS OVER
OVER	NOT OVER			
0	\$ 3,200	0	0	0
\$ 3,200	4,200	0	14%	\$ 3,200
4,200	5,200	\$ 140	15	4,200
5,200	6,200	290	16	5,200
6,200	7,200	450	17	6,200
7,200	11,200	620	19	7,200
11,200	15,200	1,380	22	11,200
15,200	19,200	2,260	25	15,200
19,200	23,200	3,260	28	19,200
23,200	27,200	4,380	32	23,200
27,200	31,200	5,660	36	27,200
31,200	35,200	7,100	39	31,200
35,200	39,200	8,660	42	35,200
39,200	43,200	10,340	45	39,200
43,200	47,200	12,140	48	43,200
47,200	55,200	14,060	50	47,200
55,200	67,200	18,060	53	55,200
67,200	79,200	24,420	55	67,200
79,200	91,200	31,020	58	79,200
91,200	103,200	37,980	60	91,200
103,200	123,200	45,180	62	103,200
123,200	143,200	57,580	64	123,200
143,200	163,200	70,380	66	143,200
163,200	183,200	83,580	68	163,200
183,200	203,200	97,180	69	183,200
203,200	....	110,980	70	203,200

## 1979 SCHEDULE Y: MARRIED FILING JOINTLY

TAXABLE INCOME		PAY	+	TAX RATE	ON EXCESS OVER
OVER	NOT OVER				
0	\$ 3,400	0		0	0
\$ 3,400	5,500	0		14%	\$ 3,400
5,500	7,600	\$ 294		16	5,500
7,600	11,900	630		18	7,600
11,900	16,000	1,404		21	11,900
16,000	20,200	2,265		24	16,000
20,200	24,600	3,273		28	20,200
24,600	29,900	4,505		32	24,600
29,900	35,200	6,201		37	29,900
35,200	45,800	8,162		43	35,200
45,800	60,000	12,720		49	45,800
60,000	85,600	19,678		54	60,000
85,600	109,400	33,502		59	85,600
109,400	162,400	47,544		64	109,400
162,400	215,400	81,464		68	162,400
215,400	.....	117,504		70	215,400