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Volume Author/Editor: C. Harry Kahn

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## CHAPTER 5

# Tax Liability on Unincorporated Business and Professions

THE personal income tax has, in principle, no separate tax rates for different sources of income. If this principle were strictly adhered to, the tax collected from any individual would be the same as long as his total income was the same, regardless of whether that income originated from property or personal effort. Such a condition, however, has never existed in the history of United States income tax practice. The tax law has at all times drawn distinctions between income types reflected in differences in rates. Capital gains and losses have been separately treated since 1922; dividends have been subject to somewhat lowered personal income tax rates in recognition of the separate tax on corporate net income; interest on government bonds—in recent years only state and local—has been favored with partial or total exemption; wages, salaries, and income from business and professional practice were for many years eligible for a so-called earned-income credit.<sup>1</sup> In addition to these very explicit differences in rates for different functional components, there are differences in the extent to which their realization for tax purposes can be distributed over time, thus indirectly affecting the rate of tax levied on the individual recipient. Deferred compensation plans, stock options, and corporate income retention are cases in point. Finally, differences in income coverage (dealt with in Chapter 2) influence the effective tax rate on the various functional components.

In view of the variety of ways in which persons may arrange the realization of their income from a given activity, the income tax imputable to unincorporated enterprise becomes of interest. This is especially so because many of those engaged in business and profession have considerable choice as to form of income realization. They may conduct their affairs through incorporation, in which case, as a rule, some combination

<sup>1</sup> Each of these devices, except the earned-income credit, have been extensively examined in previous National Bureau studies of the income tax. Capital gains and losses are dealt with in Lawrence H. Seltzer, *The Nature and Tax Treatment of Capital Gains and Losses*, New York, NBER, 1951; dividends in Daniel M. Holland, *The Income-Tax Burden on Stockholders*, Princeton for NBER, 1958, and *Dividends Under the Income Tax*, Princeton for NBER, 1962; interest in George E. Lent, *The Ownership of Tax-Exempt Securities, 1913-1953*, Occasional Paper 47, New York, NBER, 1955, in Lawrence H. Seltzer, *Interest as a Source of Personal Income and Tax Revenue*, Occasional Paper 51, New York, NBER, 1955, and in Roland I. Robinson, *Postwar Market for State and Local Government Securities*, Princeton for NBER, 1960.

of corporate and personal income tax rates apply;<sup>2</sup> or they may operate as unincorporated enterprises subject to personal income tax rates. In both cases some conversion of ordinary income into long-term capital gains, which are taxable at one-half the rates applicable to ordinary individual income, with an upper limit of 25 per cent, may be possible.<sup>3</sup> Thus, to gain a balanced picture of the tax on enterprise income, we need to know the tax rates experienced by unincorporated enterprise as well as those imposed on corporate income and capital gains.

We shall first discuss the effective rate of tax on unincorporated enterprise income to show the proportion of the total paid in federal income tax. Secondly, we shall examine marginal rates of tax, that is, the rate at which an additional dollar of income, or loss, has been shared by the Treasury through the income tax.

### *Effective Tax Rate on Business and Professional Income*

The assignment of a tax liability to unincorporated enterprises is the first step in the computation of their average effective rate of income tax. If all those with income from unincorporated enterprise had no other source, their average (mean) effective tax rate would be computed merely by dividing their total tax liability by their income. But as we know (see Chapter 3), such persons also have large amounts of other income. Hence, there is a question of the share of tax liability attributable to their enterprise income. Since a person's tax liability is determined on all of his taxable income simultaneously, we have assigned the same fraction of his tax liability to the business and professional component as the latter is of his total taxable income. In other words, each taxpayer's effective rate of tax was assumed to apply equally to all of his taxable income shares, with appropriate adjustments where the law provides for special tax treatment, as in the case of dividends and capital gains.<sup>4</sup>

<sup>2</sup> Beginning with 1958, so-called small business corporations—essentially domestic corporations with no more than ten individuals as shareholders—could elect to have their corporate income taxed at the shareholder level. Their income is thus taxed in the same manner as that of partners, without foregoing the benefits of incorporation. For the number, and net income reported, of such corporations, see Tables 28 and 29 and the discussion relating to them.

<sup>3</sup> For examples of such conversion, see Chapter 3.

<sup>4</sup> Our computations actually do not begin with the incomes of proprietors as such, but simply assign to business and professional income in a given AGI class the effective rate of tax found by dividing tax liability by AGI in that class. Tax liability was computed for each income component before tax credits, and from this gross tax liability, tax credits—where they exist—were subtracted. We thus took account of the special treatment of "earned" income, for which a tax credit was available at various times in the past, the credit on dividends which existed until 1936 and again from 1954 to the present, and the alternative tax available for net long-term capital gains.

TAX LIABILITY ON BUSINESS AND PROFESSIONS

TABLE 37

TAX LIABILITY ATTRIBUTABLE TO UNINCORPORATED BUSINESS AND PROFESSIONAL INCOME, EMPLOYMENT, AND PROPERTY INCOME UNDER THE PERSONAL INCOME TAX, 1918-60

	Tax Liability (billion dollars)				Percentage Distribution		
	Total <sup>a</sup>	Business and Professional Income	Employment	Property Income	Business and Professional Income	Employment	Property Income
1918	1.13	.31	.31	.51	27.1	27.4	45.5
1919	1.27	.39	.32	.56	30.8	25.3	43.8
1920	1.08	.28	.36	.44	25.7	33.4	40.9
1921	.72	.16	.25	.31	22.4	34.4	43.2
1922	.86	.17	.25	.44	20.3	29.0	50.7
1923	.66	.13	.19	.34	19.8	28.9	51.3
1924	.70	.13	.17	.41	18.3	23.6	58.2
1925	.73	.13	.13	.48	17.6	17.2	65.2
1926	.73	.12	.13	.48	15.9	18.3	65.9
1927	.83	.13	.14	.56	15.6	17.1	67.3
1928	1.16	.18	.16	.83	15.3	13.6	71.1
1929	1.00	.14	.12	.74	14.0	12.3	73.7
1930	.48	.06	.11	.31	11.7	23.5	64.8
1931	.25	.03	.07	.14	12.6	29.2	58.1
1932	.33	.04	.14	.15	11.7	42.4	45.9
1933	.37	.06	.13	.18	16.4	34.9	48.7
1934	.51	.06	.15	.30	12.4	29.5	58.1
1935	.66	.09	.18	.39	13.4	27.8	58.8
1936	1.21	.15	.27	.79	12.7	22.3	65.0
1937	1.14	.13	.29	.71	11.6	25.8	62.6
1938	.77	.10	.24	.43	13.1	31.0	55.9
1939	.93	.13	.29	.51	13.5	31.0	55.5
1940	1.50	.23	.52	.76	14.7	34.7	50.6
1941	3.91	.83	1.90	1.18	21.1	48.6	30.3
1942	8.93	2.10	5.19	1.64	23.5	58.1	18.4
1943	14.59	3.50	8.98	2.10	24.0	61.6	14.4
1944	16.35	3.69	10.41	2.25	22.6	63.7	13.8
1945	17.23	4.15	10.38	2.70	24.1	60.3	15.7
1946	16.28	4.07	9.18	3.03	25.0	56.4	18.6
1947	18.25	3.91	11.28	3.05	21.4	61.8	16.7
1948	15.62	3.16	9.63	2.83	20.2	61.7	18.1
1949	14.68	2.59	9.39	2.70	17.6	64.0	18.4
1950	18.58	3.25	11.49	3.84	17.5	61.8	20.7
1951	24.44	4.10	16.20	4.14	16.8	66.3	16.9
1952	28.04 <sub>b</sub> 27.80 <sub>b</sub>	4.38 <sub>b</sub> 4.40 <sub>b</sub>	19.57 <sub>b</sub> 19.61 <sub>b</sub>	4.08 <sub>b</sub> 3.80 <sub>b</sub>	15.6 <sub>b</sub> 15.8 <sub>b</sub>	69.8 <sub>b</sub> 70.5 <sub>b</sub>	14.6 <sub>b</sub> 13.7 <sub>b</sub>

(continued)

TAX LIABILITY ON BUSINESS AND PROFESSIONS

TABLE 37 (concluded)

	Tax Liability (billion dollars)				Percentage Distribution		
	Total <sup>a</sup>	Business and Professional Income	Employment	Property Income	Business and Professional Income	Employment	Property Income
1953 <sup>b</sup>	29.43	4.29	21.55	3.59	14.6	73.2	12.2
1954 <sup>b</sup>	26.67	3.90	19.15	3.61	14.6	71.8	13.5
1955 <sup>b</sup>	29.61	4.23	21.23	4.15	14.3	71.7	14.0
1956 <sup>b</sup>	32.73	4.66	23.64	4.43	14.2	72.2	13.5
1957 <sup>b</sup>	34.39	4.74	25.35	4.30	13.8	73.7	12.5
1958 <sup>b</sup>	34.34	4.66	25.28	4.40	13.6	73.6	12.8
1959 <sup>b</sup>	38.65	5.11	28.34	5.20	13.2	73.3	13.5
1960 <sup>b</sup>	39.46	4.80	29.65	5.01	12.2	75.1	12.7

Source: Estimated from tax liability distributions in Statistics of Income.

<sup>a</sup>

Discrepancies due to rounding.

<sup>b</sup>

Individual returns only; does not include fiduciary returns.

The results of this computation are presented in Table 37; total tax liability is divided between unincorporated business and profession, employment, and property. For 1960, unincorporated enterprise accounted for 12 per cent of tax liability, property income for 13 per cent, and wages and salaries for 75 per cent. The fact that unincorporated enterprise and property (especially the latter) account for a greater relative share of tax liability than of reported adjusted gross income (see Tables 3 and 4), is explained by the difference in the income-size distributions among the recipients of each type of income. The extent of the difference in distribution between business and professional income and all other income reported on tax returns is reflected in the difference in effective rates of tax between them (Table 38). In the years before World War II, the rate on business and professional income was less than on other income;<sup>5</sup> since 1940 it has been consistently greater. This is explained by the gradual, but drastic, shift in the composition of income

<sup>5</sup> The sharp rise in the effective rate for 1932 and 1933 may be the result of the absence of an earned-income credit in those two years. For the years 1924-31 and 1934-43, a credit against earned income (from wages and salaries, and unincorporated enterprise) up to a certain size was available. Since wages and salaries and unincorporated enterprise income were both subject to the credit, the effect of its removal showed up much less in 1944 than in 1932, for the importance in the tax base of wages and salaries in the later year had risen so much that the difference in taxation between "earned" and property income no longer had the same significance as formerly.

TAX LIABILITY ON BUSINESS AND PROFESSIONS

TABLE 38  
EFFECTIVE TAX RATE ON UNINCORPORATED BUSINESS AND PROFESSIONAL INCOME  
AND ALL OTHER INCOME REPORTED ON TAX RETURNS, 1929-60  
(dollars in billions)

	Other Income Reported on Tax Returns (1)	Tax on Other Income Reported on Tax Returns (2)	Effective Rate on Other Income Col. 2 ÷ Col. 1 (per cent) (3)	Effective Rate on Business and Profes- sional Income (per cent) (4)
1929	22.3	.9	3.9	2.9
1930	16.5	.4	2.6	1.8
1931	12.1	.2	1.8	1.5
1932	11.1	.3	2.6	3.1
1933	10.0	.3	3.1	3.5
1934	12.0	.4	3.7	3.0
1935	13.9	.6	4.1	3.7
1936	17.7	1.1	6.0	4.8
1937	19.8	1.0	5.1	3.9
1938	17.5	.7	3.8	3.2
1939	21.5	.8	3.7	3.4
1940	34.2	1.3	3.7	4.3
1941	54.2	3.1	5.7	9.7
1942	72.7	6.8	9.4	16.9
1943	90.1	11.1	12.3	22.2
1944	99.5	12.7	12.7	21.3
1945	101.4	13.1	12.9	21.7
1946	111.4	12.2	11.0	17.4
1947	126.9	14.3	11.3	16.7
1948	139.5	12.5	8.9	12.8
1949	139.3	12.1	8.7	11.9
1950	156.3	15.3	9.8	13.8
1951	178.1	20.3	11.4	16.4
1952	191.2	23.4	12.2	17.6
1953	203.8	25.1	12.3	17.2
1954	204.3	22.8	11.1	15.3
1955	221.8	25.4	11.4	15.4
1956	238.4	28.1	11.8	15.5
1957	251.5	29.7	11.8	16.0
1958	252.2	29.7	11.8	15.6
1959	275.1	33.5	12.2	16.5
1960	286.5	34.7	12.1	16.0

Source: Col. 1: Table 3, col. 8 minus col. 7, except that AGI is before exclusions from 1954 on.

Col. 2: Total tax liability, Statistics of Income, minus Table 37, col. 2.

Col. 4: Table 39, col. 6.

Note: Fiduciaries are excluded from 1953 on. "Other income" is before exclusions from 1954 on.

TABLE 39  
 ESTIMATED MEAN EFFECTIVE TAX RATE ON UNINCORPORATED BUSINESS AND  
 PROFESSIONAL INCOME, REPORTED AND ESTIMATED TOTAL, 1929-60

	Unincorporated Enterprise Income (billion dollars)				Effective Tax Rate (per cent)			
	Tax Liability (1)	Taxable Returns (2)	All Returns (3)	Estimated Total (4)	Col. 1 + Col. 2 (5)	Col. 1 + Col. 3 (6)	Col. 1 + Col. 4 (7)	
1929	.14	3.7	4.9	13.0	3.7	2.9	1.1	
1930	.06	2.4	3.1	9.5	2.3	1.8	0.6	
1931	.03	1.4	2.0	6.6	2.2	1.5	0.5	
1932	.04	0.9	1.2	4.1	4.2	3.1	0.9	
1933	.06	1.1	1.7	5.6	5.4	3.5	1.1	
1934	.06	1.4	2.1	7.6	4.6	3.0	0.8	
1935	.09	1.7	2.4	8.6	5.3	3.7	1.0	
1936	.15	2.4	3.2	10.3	6.4	4.8	1.5	
1937	.13	2.6	3.4	10.8	5.2	3.9	1.2	
1938	.10	2.2	3.1	9.6	4.5	3.2	1.1	
1939	.13	2.7	3.7	10.6	4.6	3.4	1.2	
1940	.23	3.8	5.4	11.7	6.1	4.3	2.0	
1941	.83	6.7	8.5	16.2	12.4	9.7	5.1	
1942	2.10	10.7	12.5	21.2	19.6	16.9	9.9	
1943	3.50	15.6	15.8	26.4	22.5	22.2	13.2	
1944	3.69	17.2	17.3	27.8	21.4	21.3	13.2	
1945	4.15	19.1	19.1	28.9	21.7	21.7	14.3	

(continued)

TABLE 39 (concluded)

	Unincorporated Enterprise Income (billion dollars)				Effective Tax Rate (per cent)			
	Tax Liability (1)	Taxable Returns (2)	All Returns (3)	Estimated Total (4)	Col. 1 † Col. 2 (5)	Col. 1 † Col. 3 (6)	Col. 1 † Col. 4 (7)	
1946	4.07	21.4	23.4	34.8	19.0	17.4	11.7	
1947	3.91	21.5	23.4	35.0	18.2	16.7	11.2	
1948	3.16	21.4	24.6	35.2	14.7	12.8	9.0	
1949	2.59	18.8	21.8	32.9	13.8	11.9	7.9	
1950	3.25	21.0	23.5	34.6	15.5	13.8	9.4	
1951	4.10	24.0	25.0	38.0	17.1	16.4	10.8	
1952	4.38	24.1	24.8	38.0	18.2	17.6	11.5	
1953	4.29	24.3	25.0	38.6	17.6	17.2	11.1	
1954	3.90	23.3	25.5	37.3	16.7	15.3	10.5	
1955	4.23	25.2	27.5	39.2	16.8	15.4	10.8	
1956	4.66	27.9	30.1	41.8	16.7	15.5	11.1	
1957	4.74	27.9	29.7	41.4	17.0	16.0	11.4	
1958	4.66	28.0	29.9	42.6	16.7	15.6	10.9	
1959	5.11	29.7	31.0	44.2	17.2	16.5	11.6	
1960	4.80	28.7	30.0	43.7	16.7	16.0	11.0	

Source: Col. 1: Table 37, col. 2, Cols. 2 and 3: Statistics of Income, Col. 4: Table 6, col. 2.

Note: Fiduciaries are excluded after 1952.

## TAX LIABILITY ON BUSINESS AND PROFESSIONS

on tax returns, to the extent that property income was replaced by wages and salaries as the mainstay of the tax base.

How can the tax liability estimates be meaningfully related to income from unincorporated enterprise? No one summary measure is entirely sufficient. If we divide total tax liability by estimated total unincorporated enterprise income, based on estimates of the Departments of Commerce and Agriculture, we obtain an average tax rate in the broadest sense. It shows how much of total unincorporated business and professional income is removed from private use by the income tax. But it may be argued that since the income of nontaxable persons is included, the fraction taken from those who pay the taxes is understated. For 1960, the mean effective rate of tax on business and professional income of taxpayers is nearer to 17 per cent than to 11 per cent (Table 39).<sup>6</sup> Of course, in computing an *average* effective rate of tax, there is no more reason to exclude those returns with a zero effective rate than there is to exclude those with a 1 per cent effective rate. An average, by its nature, does not reveal how high a rate of tax is paid by some. As a summary of the tax experience of all unincorporated enterprise income, the percentages shown in the last column of Table 39 are the most valid. They show that before World War II, the individual income tax absorbed less than 2 per cent of the total. But since 1942, the average effective rate has been at, or above, 10 per cent in every year except 1948–50. If the tax liability is viewed in relation to income reported on taxable returns alone, the average effective rate varied from 2 to 6 per cent of income in prewar years, reached a high of 22.5 per cent in 1943, and has been between 15 and 18 per cent since 1950.

### EFFECTIVE TAX RATE BY SIZE OF INCOME

To focus on the variation in effective rates applicable to taxpayers with unincorporated enterprise income, we turn to a breakdown of tax liability by income groups for four selected years (Table 40). The mean effective tax rate for 1960 was 15.9 per cent, or slightly below the effective rate for the \$10,000 to \$25,000 group for that year. Only for those reporting adjusted gross incomes over \$500,000 was the mean effective rate greater than 50 per cent; but unincorporated enterprise income in this group has been very small. As the lower part of the table shows, only the 10 per cent of proprietors' returns with the highest incomes were subject to a mean

<sup>6</sup> Seventeen per cent should be considered an upper limit for the mean effective rate on taxpayers' unincorporated enterprise income. To the extent that such income is underreported, the actual average effective rate is overstated when tax liability is divided by reported income. For some rough adjustment for underreporting of income see Table 41, below.

TABLE 40

EFFECTIVE TAX RATES ON UNINCORPORATED BUSINESS AND PROFESSIONAL NET INCOME<sup>a</sup>  
 REPORTED ON TAX RETURNS, BY INCOME GROUPS, SELECTED YEARS, 1939-60  
 (million dollars)

Adjusted Gross Income (thousand dollars)	1939			1949			Effective Tax Rate <sup>b</sup> Col. 5 + Col. 4 (6)
	Net Income (1)	Tax Liability (2)	Effective Tax Rate <sup>b</sup> Col. 2 ÷ Col. 1 (3)	Net Income (4)	Tax Liability (5)	Effective Tax Rate <sup>b</sup> Col. 5 + Col. 4 (6)	
Negative AGI							n.a.
0 - 2	-126.4	c	c	-919.0	n.a.	n.a.	1.7
2 - 3	388.9	0.5	.1	2,815.6	46.7	1.7	3.8
3 - 5	629.6	1.3	.2	2,846.8	107.2	3.8	6.1
5 - 10	931.6	8.0	.9	4,364.9	267.4	6.1	10.2
10 - 25 <sup>c</sup>	887.7	21.1	2.4	4,718.6	480.1	10.2	15.6
25 - 50 <sup>c</sup>	624.3	35.9	5.8	4,607.1	718.8	15.6	24.1
50 - 100	220.0	26.6	12.1	2,034.8	489.5	24.1	33.6
100 - 500	100.4	20.6	20.5	901.9	302.8	33.6	43.3
500 and over	34.0	12.0	35.1	380.4	164.6	43.3	53.6
	-1.1	-0.5	51.1	26.0	13.9	53.6	
Deciles							
1st				-827.9	n.a.	n.a.	0.7
2nd				518.1	3.7	3.7	1.4
3rd				863.2	12.1	12.1	2.2
4th				1,091.8	24.2	24.2	3.2
5th				1,334.8	42.0	42.0	4.0
6th				1,601.9	64.4	64.4	5.0
7th				1,853.5	92.6	92.6	6.7
8th	223.7	4.1	1.8 <sup>d</sup>	2,219.7	149.6	149.6	8.9
9th	792.3	46.1	5.8 <sup>d</sup>	3,140.0	279.6	279.6	19.3
10th				9,982.3	1,922.9	1,922.9	
Total	3,689.2	125.5	3.4	21,777.2	2,591.1	2,591.1	11.9

(continued)

TABLE 40 (concluded)

Adjusted Gross Income (thousand dollars)	1952			1960		
	Net Income (7)	Tax Liability (8)	Effective Tax Rate <sup>b</sup> Col. 8 ÷ Col. 7 (9)	Net Income (10)	Tax Liability (11)	Effective Tax Rate <sup>b</sup> Col. 11 ÷ Col. 10 (12)
Negative AGI	-975.1	-23.3	2.4	-1,236.6	-22.0	1.8
0 - 2	1,986.1	84.3	4.3	1,450.2	32.2	2.2
2 - 3	2,366.1	165.1	7.0	1,584.1	82.2	5.2
3 - 5	4,362.4	399.6	9.2	4,095.9	319.4	7.8
5 - 10	5,836.6	776.0	13.3	7,766.0	857.0	11.0
10 - 25 <sup>e</sup>	4,964.1	928.5	18.7	9,409.6	1,558.6	16.6
25 - 50 <sup>e</sup>	4,384.8	1,233.0	28.1	4,784.8	1,183.8	24.7
50 - 100	1,311.0	541.0	41.3	1,772.6	600.5	33.9
100 - 500	508.8	262.1	51.5	411.6	169.0	41.1
500 and over	9.1	5.8	62.9	.4	.2	50.9
Deciles						
1st	-898.1	-23.2	2.6	-1,147.3	-22.0	1.9
2nd	597.7	18.0	3.0	660.1	8.9	1.4
3rd	905.8	43.7	4.8	1,046.1	39.1	3.7
4th	1,187.6	71.5	6.0	1,426.6	77.8	5.5
5th	1,477.2	107.8	7.3	1,862.0	131.1	7.0
6th	1,725.8	144.9	8.4	2,143.4	185.9	8.7
7th	1,983.6	186.5	9.4	2,512.1	241.8	9.6
8th	2,462.1	272.3	11.1	3,010.7	334.5	11.1
9th	3,796.5	525.5	13.8	4,582.6	614.2	13.4
10th	11,515.7	3,025.3	26.3	13,941.5	3,169.0	22.7
Total	24,753.9	4,372.3 <sup>f</sup>	17.7	30,037.8	4,780.4 <sup>f</sup>	15.9

effective rate close to 25 per cent. But they accounted for nearly one-third of unincorporated enterprise net income reported. For 70 per cent of the returns, the mean effective rate was less than 10 per cent. For the lowest tenth of returns, which almost coincides with the negative AGI group, the federal government participated in losses by way of tax rebate at an estimated average effective rate of 2 per cent.<sup>7</sup>

This rate, it will be noted, is lower than that shown for the \$0-\$2,000 income group. It reflects the fact that, for the years on which the estimates are based, the major part of the deduction for loss carryforward was reported on returns with negative income (after the deduction). While we obtain thus a picture of smooth progression of effective rates by income groups, including that with negative income, it should be stressed that this need not be so. The effective rate of loss absorption in the negative income group could be higher than that of some groups above it, if the loss carryovers were taken to returns with high enough incomes in the year the loss offset is made. The fact that this was not found could mean either that the returns with negative income for a given year are of those

<sup>7</sup> Estimated tax offset for net loss reported on returns with negative income was not included in the basic tax liability series for 1918-60, shown in Table 37, because data on loss carryovers are extremely fragmentary. Tax offset estimates were only ventured for some recent years and even these are very crude. For the method employed, see Appendix I.

Two somewhat arbitrary assumptions were made to obtain the estimates. First, it was assumed that all of the estimated net operating loss for a given year is either carried back or forward. In view of the average size of carryforwards, discussed in Chapter 4, this seemed to be the most reasonable assumption. However, as shown in Appendix I, by far the greater part of reported loss carryforwards are on returns with negative total income. Second, it is assumed that the distribution by income group of the net operating loss carryforward deduction is also applicable to the carryback portion, and that this size distribution holds for the years for which no such data are published.

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NOTES TO TABLE 40

Source: Cols. 1, 4, 7, and 10: Statistics of Income. Cols. 2, 5, 8, and 11: Estimated from tax liability distribution in Statistics of Income.

<sup>a</sup>Business and partnership net profits minus net losses.

<sup>b</sup>Percentages based on unrounded figures.

<sup>c</sup>For 1939, returns with negative income had a tax liability of \$32 million. No estimate of net operating loss carryover for that year is included.

<sup>d</sup>Figures shown are for sole proprietors only and the lower of the two figures is for the 85th to 90th percentile only.

<sup>e</sup>For 1952, the class limit was \$20,000 instead of \$25,000.

<sup>f</sup>Total tax liability in this table for 1952 and 1960 differs from that in Table 37 by the amount shown for the negative AGI group. For most years estimates of negative tax for that group were not possible.

## TAX LIABILITY ON BUSINESS AND PROFESSIONS

persons whose income is modest even over long periods of time, or that the time which had elapsed between the loss year and the carryforward year was not long enough to allow for a recovery to "normal" positive income.<sup>8</sup>

As has been noted above, the effective rates computed with income reported on tax returns are overstated because of some downward bias in reported incomes. Part of this bias can be eliminated by raising the reported incomes, as shown in Table 40, by multiples based on the Audit Control estimates for 1948-49. Unincorporated enterprise net income for 1949, 1952, and 1960 was raised in each of the broad income groups shown by the same relative amount as was brought about by the 1948 Audit Control Program (Table 16). The results of these adjustments are shown in Table 41. After adjustment by the ACP findings, the effective rate of tax on unincorporated enterprise income reported on all returns was 10.6 per cent for 1949 and 14.3 per cent for 1960; before adjustment, it was 11.9 and 15.9 per cent, respectively. To the extent that the ACP estimates did not uncover all reporting errors these effective rates are still too high.

### EFFECTIVE TAX RATE BY SOLE PROPRIETOR AND PARTNERSHIP PROFIT AND LOSS

Our data up to this point have been concerned with tax liabilities on business and professional net income without a separation of sole proprietors from partners, and without regard to the net profit and net loss components of income. The separation of returns with net profit from those with net loss is of interest because of the opposite effect that each has on tax liability; that is, because of the important part their tax treatment plays with respect to risk taking and enterprise.

The dividing line between proprietors who act alone and those with partners may not always be significant. For some purposes it makes little difference whether a shoe store is operated by two brothers or only one, or whether two physicians practice in partnership or separately. Yet, as already suggested in Chapter 1, a separate presentation is useful since it distinguishes, albeit roughly, smaller from larger enterprises, and those in which internally supplied labor, for given size firms, is of less importance, from those in which it is of greater importance. In addition, the farm sector has less weight among partnerships than among sole proprietors.

<sup>8</sup> Without information on the time-shape and amplitude of individual income fluctuations, it is not possible to go beyond the general and inconclusive comments regarding loss carryovers offered in the text.

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TABLE 41

EFFECTIVE TAX RATES ON UNINCORPORATED ENTERPRISE NET INCOME  
 REPORTED ON TAX RETURNS ADJUSTED FOR INCOME-REPORTING  
 ERRORS, BY INCOME GROUPS, SELECTED YEARS, 1949-60

Adjusted Gross Income (thousand dollars)	Enterprise Net Income		Tax Liability Attributable to Enterprise Income (3)	Effective Tax Rate	
	Reported (1)	Adjusted for Error (2)		Unadjusted (Col. 3 ÷ Col. 1) (4)	Adjusted (Col. 3 ÷ Col. 2) (5)
<u>1949</u>					
Under 7 <sup>a</sup>	11,542	13,277	646	5.6	4.9
7 - 25	6,892	7,754	975	14.2	12.6
25 - 100	2,937	3,082	792	27.0	25.7
100 and over	406	415	179	43.9	43.0
Total	21,777	24,528	2,591	11.9	10.6
<u>1952</u>					
Under 7 <sup>a</sup>	10,792	12,415	994	9.2	8.0
7 - 25	9,031	10,160	1,640	18.2	16.1
25 - 100	4,413	4,631	1,471	33.3	31.8
100 and over	518	529	268	51.7	50.6
Total	24,754	27,735	4,372	17.7	15.8
<u>1960</u>					
Under 7 <sup>a</sup>	9,548	10,984	772	8.1	7.0
7 - 25	13,521	15,212	2,055	15.2	13.5
25 - 100	6,557	6,882	1,784	27.2	25.9
100 and over	411	420	169	41.0	40.2
Total	30,038	33,497	4,780	15.9	14.3

Source: Cols. 1, 3, and 4 are the same as in Table 40 except for broader income groupings in this table. Col. 2 equals col. 1 multiplied by the 1948 ratio of our estimate of reported AGI for all sole proprietors plus col. 4, Table 16, to our estimate of reported AGI for sole proprietors.

<sup>a</sup>Includes all nontaxable returns.

In Table 42, mean effective rates are presented for the reported net profits and losses of sole proprietors and partners for nine recent years. Partnership net profits and losses were taxed at a higher rate than those of sole proprietors, reflecting the fact that the former were reported by persons with higher incomes, on average, than the latter. The mean effective rate of tax on net profits reported on taxable returns was 15.5 per cent for sole proprietors and 20.5 per cent for partners. Net losses on taxable returns were shared by the Treasury at a higher mean effective

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TABLE 42

MEAN EFFECTIVE TAX RATE ON PROFITS AND LOSSES, BY  
SOLE PROPRIETOR AND PARTNERSHIP, 1952-60

	Sole Proprietorship		Partnership	
	Net Profits	Net Losses	Net Profits	Net Losses
TAXABLE RETURNS				
1952	16.5	21.3	22.1	25.5
1953	15.9	19.2	21.4	25.1
1954	15.1	17.5	20.0	23.2
1955	15.2	17.8	20.0	22.6
1956	15.3	18.3	20.3	23.4
1957	15.5	17.7	20.3	24.2
1958	15.1	16.6	20.1	23.6
1959	15.8	16.4	20.4	23.8
1960	15.4	16.7	19.8	21.3
Average	15.5	17.9	20.5	23.6
ALL RETURNS				
1952	14.7	9.0	21.6	13.4
1953	14.2	8.4	21.0	12.3
1954	12.5	7.7	19.0	11.6
1955	12.8	8.6	19.0	11.5
1956	13.1	8.9	19.4	12.5
1957	13.5	8.5	19.5	12.2
1958	13.1	8.1	19.2	13.8
1959	14.0	7.9	19.6	13.6
1960	13.6	8.3	19.0	11.0
Average	13.5	8.4	19.7	12.4

Source: See Appendix H.

rate than net profits: at 18 per cent for sole proprietors and 24 per cent for partners. This is, of course, not the result of any deliberate bias in the tax law in favor of losses, but rather the result of the income-size distribution among taxable proprietors with losses as compared to those with profits. In the taxpaying group, those with unincorporated enterprise losses appear, on average, to have higher incomes than those with net profits.

However, when we compare mean effective rates for net profits and net losses reported on all returns (taxable and nontaxable), the picture changes somewhat. The mean effective tax rate on net profits is only slightly lowered by the inclusion of nontaxable returns, but the effective

## TAX LIABILITY ON BUSINESS AND PROFESSIONS

rate on losses is lowered considerably. For sole proprietors the mean rate on net profits is now 13.5 per cent; that on net losses 8 per cent. For partners the respective mean rates are 20 and 12 per cent. This is as one would expect: losses are of greater relative importance on nontaxable than on taxable returns.<sup>9</sup> Whereas all losses on taxable returns are in part absorbed by the government at the taxpayer's effective rate, those reported on nontaxable returns are shared only if the return would have been taxable without the loss, or if the taxpayer is able to offset his losses against taxable income through the carryback or carryforward provisions of the tax law. As we have seen in the preceding chapter this is not always the case.

The relation between the rate of tax at which the government shares net profits and that at which it shares net losses on all returns is no surprise. We would expect net profit to be shared at a higher rate than net losses since the former help to raise income and the latter to lower it. Yet on taxable returns the expected relationship between the effective rate on profits and losses does not prevail. Some reasons for this have been suggested in Chapter 3. Evidently we are encountering two somewhat distinct groups of proprietors.

On the one hand, there is a group with high average expected incomes from other sources (property, salary, etc.) who venture some of their capital in unincorporated enterprises. The conversion of some of their profitable enterprises into corporations, and the transformation of some of their net profits into long-term capital gains, may account in large part for the greater concentration of net losses than net profits on high income returns. And this is reflected in the higher average tax rate on net losses than on net profits reported on taxable returns. In addition, consumption expenditures, disguised for tax purposes as business losses (gentlemen's farms, gift shops, etc.) may play a part in causing a high effective rate of loss sharing. Such "hobby-losses" are positively related to income, first, because of the luxury character of the underlying expenditure, and second, because conversion of the hobby into a business

<sup>9</sup> For 1960, the distribution between taxable and nontaxable returns was as follows (in millions of dollars):

	<i>Sole Proprietors</i>	<i>Partners</i>
Net profit	23,959	9,757
taxable returns	21,099	9,367
nontaxable returns	2,860	390
Net loss	2,887	791
taxable returns	1,345	384
nontaxable returns	1,542	407

makes it cheaper the higher the rate of tax at which the "loss" is shared by the government.

The other group of proprietors may be characterized as the large body of self-employed businessmen, artisans, farmers, and professional persons. Except for the professional group, they are typically low- and middle-income persons whose business is their main source of income. Hence their losses may be frequently only in part, or insignificantly, offset against income from other sources (as could have been inferred from Table 34); they may be largely responsible for the net profit and loss distributions on all returns conforming to the expected pattern. Consequently, absorption of part of this group's loss through the tax system is much more problematical than for the first group, since such absorption largely depends on the possibility of carrying a loss back or forward in time.

Our findings thus far may be summarized as follows. For the aggregate of net profits reported in the 1952-60 period, the federal government's participation has been about 13.5 per cent for sole proprietors and 20 per cent for partners; for net losses, it has assumed an 8 per cent share for sole proprietors and a 12 per cent share for partners. These percentages simply tell us what fraction of total reported unincorporated enterprise income was actually paid in taxes. They are of course the result of a variety of interacting factors, such as the income distribution among those reporting business and professional income and the large number of adjustments that a person can make to a complex tax system. As we have seen, effective rates vary considerably by income groups: from 8 per cent for the \$3,000-\$5,000 group, to 25 per cent for the \$25,000-\$50,000 group. This range comprises \$26 billion of the total of \$30 billion business and professional net income reported for 1960 (Table 40).

The data presented above cover a rather heterogeneous group of proprietors. In particular, the inclusion of persons for whom unincorporated enterprise is only a secondary or minor source of income may affect the mean rates presented. Furthermore, the inclusion of farm income must have lowered the mean rates. The importance of both factors is appraised in the following section.

#### EFFECTIVE RATE FOR SOLE PROPRIETORS WITH VARYING PROPORTIONS OF INCOME FROM SOLE PROPRIETORSHIP

One difficulty in working with tax return data is that of obtaining a precise separation of individuals for whom proprietorship in an enterprise is

the major occupation and source of income and those for whom it is a secondary occupation and source. Ideally, one might wish to follow the practice of classifying persons as "active proprietors of unincorporated enterprises" if they devote the major portion of their time to the business.<sup>10</sup> While this procedure is not feasible with presently available information, we can nevertheless approximate a separation by major and minor source of income on the basis of available cross tabulations of return frequencies by size of enterprise net profit and by size of total income.

Table 43 shows the frequency of returns with net profit from sole proprietorship for 1960 by size of income and by net-profit-to-total-income percentage bands. The frequency of returns with net profit less than 10 per cent, 10 to 25 per cent, 25 to 50 per cent, and more than 50 per cent of income are shown by income groups.

We find that of the 6.8 million returns covered by the table, 11 per cent reported net profits accounting for less than one-tenth of their total incomes. This represents an upper, though somewhat arbitrary, limit on the relative frequency of returns of "moonlighters"—persons who, in addition to their regular employment, perform odd jobs on their own account. It represents an upper limit because returns of persons who are full-time entrepreneurs, but have a secondary source of income (say stocks and bonds), might also show up in this group in a year of adversity.<sup>11</sup> Over the income range \$0–\$100,000, the frequency of returns with net profits less than one-tenth of income varies from 3 to 18 per cent of the total in the group. Above that level, the relative frequency rises sharply, suggesting that there are indeed few persons above the \$100,000 level whose primary source of income is ordinary (as opposed, for example, to capital gains) income from unincorporated enterprise. The frequency of returns with net profits larger than 10 per cent of income could only be obtained for the incomes up to \$200,000; this, however, includes most of such returns. For 10 per cent of the returns with net profits, the latter were greater than 10 but less than 25 per cent of adjusted gross income. The frequency of returns with net profit less than one-fourth of income varied from 8 per cent for the \$0–\$2,000 group to 51 per cent for the \$100,000–\$200,000 group.

<sup>10</sup> See Department of Commerce, *U.S. Income and Output*, Table VI-16.

<sup>11</sup> On the other hand, some persons whose enterprise is a secondary source may show up in the group deriving the major portion of their income from enterprise, in a year in which the primary source has suffered. This is not as likely as the first case because income from unincorporated business fluctuates with greater amplitude than most other functional components. See Irwin Friend and Irving Kravis, "Entrepreneurial Income, Saving and Investment," *American Economic Review*, June 1957, p. 270.

TABLE 43

ESTIMATED PERCENTAGE OF RETURNS ON WHICH REPORTED SOLE PROPRIETORSHIP NET PROFIT IS LESS THAN, OR EXCEEDS, STATED PERCENTAGE OF INCOME, BY INCOME GROUPS, 1960

AGI Group (thousand dollars)	Frequency of Returns with Sole Proprietorship Net Profit (in thousands) (1)	Percentage of Returns with Net Profit				
		Less Than 10 Per Cent of AGI (2)	Between 10 and 25 Per Cent of AGI (3)	Between 25 and 50 Per Cent of AGI (4)	More Than 50 Per Cent of AGI (5)	
Negative AGI	16.3					
0 - 2	1,854.4	2.9	5.4	11.1	80.5	
2 - 3	908.2	5.5	8.9	12.9	72.7	
3 - 5	1,477.8	11.2	11.5	12.8	64.5	
5 - 10	1,719.2	21.0	14.4	16.2	48.3	
10 - 25	705.1	14.8	10.0	14.9	60.3	
25 - 50	125.1	10.7	8.3	15.9	65.0	
50 - 100	22.6	18.3	9.6	18.3	53.8	
100 - 200	2.3	36.3	14.4	13.2	36.1	
200 - 500	.4	63.4	n.a.	n.a.	n.a.	
500 and over	.1	87.5	n.a.	n.a.	n.a.	
Total <sup>a</sup>	6,815.1	11.1	n.a.	n.a.	n.a.	
Partial total (0-200)	6,814.6	11.1	10.0	13.5	65.4	

Source: For detailed frequencies and method of estimation, see Appendix F.  
<sup>a</sup>Excluding negative AGI.

Of particular interest is the frequency of returns on which sole proprietor net profits constitute more than half of reported total income. Close to three-fourths in the \$2,000–\$3,000 group, and over one-third in the \$100,000–\$200,000 group, derived more than half their income from sole proprietorship. Thus it appears that for well over one-half of the returns with net profit from this source, this is the major source of income, and this holds true for every income group shown in the \$0–\$100,000 span. Nevertheless, the number of returns showing less than half of income from sole proprietorship is large, indicating that many engage in business “on the side,” or are in a transitional stage. But this group accounts for only 14 per cent of reported net profits. Those who derive less than 10 per cent of income from that source account for only an estimated 1 per cent of reported net profits (Table 42).

The information presented in Tables 43 and 44 enables us to show the ratio of net profit to total income for a particular slice of sole proprietors. Previously we have shown this ratio for all sole proprietors with net profit (Table 22). In Table 45 it is shown for those sole proprietors with estimated net profit exceeding 50 per cent of reported income, as well as for all sole proprietors reporting net profit. We find that for all proprietors in the income range \$0–\$200,000, net profits were slightly below two-thirds of their total income. But for the group more than half of whose income was sole proprietor net profit in 1960, the latter accounted for 91 per cent of total income: 96 per cent in the \$0–\$2,000 group and 88 per cent in the \$100,000–\$200,000 group. Thus, over the income range discussed, a very large amount of net profits—86 per cent of the total—was reported on returns for which they constituted, on average, 91 per cent of total income. For this significant group, the loss carryover provisions discussed earlier are of great importance; because this group has relatively small amounts of other income, its business losses can with corresponding ease result in negative total income.

Since sole proprietors whose net profits constitute more than half of their income account for nearly nine-tenths of the net profits reported, the average effective rates presented for all returns in Table 42 are not likely to be greatly modified when we omit those proprietors whose enterprise appears to be a secondary source of income. Average effective rates for two percentage bands, based on the estimates shown in Table 44, were computed. When we eliminate returns whose net profits are less than 10 per cent of total income reported for 1958 and 1960, the average effective rate of tax remains the same as for all net profits (Table 46). With the elimination of all net profits which constitute less

TABLE 44

ESTIMATED NET PROFIT REPORTED ON RETURNS WITH SOLE PROPRIETORSHIP NET PROFIT LESS THAN,  
OR EXCEEDING, STATED PERCENTAGE OF INCOME, BY INCOME GROUPS, 1960

AGI Group (thousand dollars)	Sole Proprietor- ship Net Profit (million dollars) (1)	Percentage of Sole Proprietorship Net Profit on Returns with Net Profit			
		Less Than 10 Per Cent of AGI (2)	Between 10 and 25 Per Cent of AGI (3)	Between 25 and 50 Per Cent of AGI (4)	More Than 50 Per Cent of AGI (5)
Negative AGI	53.0				
0 - 2	1,625.3	.2	1.5	5.6	92.6
2 - 3	1,635.1	.4	2.1	6.7	90.8
3 - 5	3,777.3	.8	2.7	7.7	88.7
5 - 10	6,383.2	1.9	3.4	14.6	80.0
10 - 25	6,548.6	1.0	2.7	8.5	87.8
25 - 50	2,910.7	.7	2.6	9.3	87.3
50 - 100	877.0	1.3	3.0	14.1	81.5
100 - 200	118.7	3.2	5.6	12.6	78.6
200 - 500	22.2	13.1	n.a.	n.a.	n.a.
500 and over	7.8	35.6	n.a.	n.a.	n.a.
Total <sup>a</sup>	23,905.9	1.1	n.a.	n.a.	n.a.
Partial total (0-200)	23,876.0	1.1	2.8	10.0	86.1

Source: Amounts of net profit shown in Appendix Table F-2.

<sup>a</sup>Excluding negative AGI.

TABLE 45

## ESTIMATED NET PROFIT AND AGI REPORTED ON RETURNS FOR WHICH NET PROFIT FROM SOLE PROPRIETORSHIP WAS OVER 50 PER CENT OF AGI, BY INCOME GROUPS, 1960

Adjusted Gross Income (thousand dollars)	Returns with Net Profit Over 50 Per Cent of AGI		All Returns with Net Profit			
	Net Profit (1)	AGI (2)	Col. 1 ÷ Col. 2 (3)	Net Profit (4)	AGI (5)	Col. 4 ÷ Col. 5 (6)
0 - 2	1,506	1,576	95.5	1,625	1,987	81.8
2 - 3	1,484	1,643	90.3	1,635	2,264	72.2
3 - 5	3,352	3,735	89.7	3,777	5,839	64.7
5 - 10	5,104	5,842	87.4	6,383	11,983	53.3
10 - 25	5,752	6,134	93.8	6,550	10,135	64.6
25 - 50	2,541	2,714	93.6	2,911	4,173	69.8
50 - 100	715	798	89.6	876	1,486	59.0
100 - 200	93	107	87.6	119	304	39.1
Total	20,546	22,548	91.1	23,876	38,170	62.6

Source: Col. 1: Table F-2.

Col. 2: Frequencies of returns with net profits more than 50 per cent of AGI, shown by broad AGI classes in Table F-1, multiplied by average AGI for narrow income classes as explained in Appendix G.

Cols. 4 and 5: Table G-1.

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TABLE 46

ESTIMATED EFFECTIVE PROFIT TAX RATE OF RETURNS WITH SOLE PROPRIETORSHIP PROFIT GREATER THAN 10 PER CENT, AND GREATER THAN 50 PER CENT, OF AGI, 1958 AND 1960

	Effective Tax Rate on All Returns with Positive Income	Effective Tax Rate on Returns with Net Profit Greater Than	
		10 Per Cent of AGI	50 Per Cent of AGI
Weighted by amounts of net profit			
1958	13.1	13.1	12.9
1960	13.6	13.6	13.5
Weighted by frequencies			
1958	7.2	7.0	6.6
1960	7.7	7.3	6.9

Source: See Appendix F, Tables F-3 and F-4.

than half of income reported, the average effective rate drops from 13.6 to 13.5 per cent for 1960—only a very small change. It is thus evident that our findings concerning average effective rates of tax are only negligibly altered when we restrict ourselves to the returns of persons whose major source of income appears to be sole proprietorship.<sup>12</sup> All the mean effective rates presented thus far were computed by dividing total tax liability by total net profits of a group of proprietors. As a result, the amount of net profit reported on a return automatically serves as its weight. The mean effective rates thus obtained are therefore representative of business and professional *income*, but not necessarily of proprietors. If each of the latter is given equal weight, so that the weighting is by frequencies rather than amount of net profit, the resulting mean effective rates are much lower than before (7.7 per cent for all

<sup>12</sup> The above test, it should be noted, is only based on the net profits of sole proprietors. They were the major, but of course not the only recipients of unincorporated enterprise income. A breakdown for 1960 is as follows (in million dollars):

Sole proprietor	
net profits	23,959
net losses	2,887
Partnership	
net profits	9,757
net losses	791

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TABLE 47

ESTIMATED EFFECTIVE TAX RATE ON NET INCOME FROM SOLE PROPRIETORSHIP, BY FARMS, PROFESSIONS, AND BUSINESS, 1960

	Net Income (net profit less loss) (1)	Computed Tax Liability (2)	Mean Effective Rate Col. 2 ÷ Col. 1 (3)
All sole proprietorship	21,067	3,014	14.3
Farms	2,998	263	8.8
Professions <sup>a</sup>	5,257	1,048	19.9
Business	12,812	1,703	13.3

Source: Col. 1: Statistics of Income, U.S. Business Tax Returns, 1960-61, Table 6.

Cols. 2 and 3: Computed by using mean effective rates for all returns in given income groups as shown in Table F-3 and explained in Appendix H.

<sup>a</sup>Includes medical, legal, educational, and engineering professional practitioners. All other services are included in the "business" category.

sole proprietors with net profit, instead of 13.6 per cent; see Table 46). The merits of each weighting scheme are discussed at greater length below.

EFFECTIVE RATE FOR SOLE PROPRIETORS, BY INDUSTRIAL GROUPINGS

Computations to obtain the effective rates for sole proprietors by three broad industrial groupings were made on the basis of data published for the first time for 1960.<sup>13</sup> Sole proprietor net income for various industrial classifications has not heretofore been broken down by size of total income (AGI) of proprietors. However, the effective rates for industry groups now available differ conceptually in one respect from the effective rates presented in Table 46: instead of rates for net profits, they are for net profits less net losses, or what we have termed net income.

The \$21.1 billion net income from sole proprietorship is divided in Table 47 between farm, professional, and business proprietors. The mean effective rate for all industrial groups was 14.3 per cent for 1960.<sup>14</sup> That for the business category, which comprises the majority of sole

<sup>13</sup> U.S. Treasury Department, *U.S. Business Tax Returns, Statistics of Income, 1960-61, Table 6.*

<sup>14</sup> Because this is a composite effective rate on net profits and net losses combined, it is paradoxically higher than the effective rate on sole proprietor net profits (13.6 per cent) and net losses (8.3 per cent) separately (Table 42). The explanation is found in the concentration of net losses at low income levels (when the distribution for all tax returns is used). Since net losses are a negative item they cancel out some net profits, the latter similarly concentrated at low income levels. The remainder, after net losses have been offset against net profits, is therefore more concentrated on high-income returns than before and the result is a higher mean effective rate than that on net profits before net losses were subtracted.

proprietors and well over half the net income reported, was 13.3 per cent. But the farm and professional groups departed significantly from the over-all average. For the former, the computed mean effective rate was only 8.8 per cent; for the latter, almost 20 per cent. Evidently, the use of a mean rate for all sole proprietorship income leads to significant overstatement of the tax rate on farmers and understatement of independent professional practitioners.

These mean effective rates present an *ex post* picture for reported aggregates. The *ex ante* tax treatment of a taxpayer's profit and loss is of course a different matter. If a taxpayer has a given income from other sources, say rentals and interest, an entrepreneurial venture confronts him with a given tax rate on the expected profit, and an equal, or smaller,<sup>15</sup> negative tax rate on the expected loss. The existence of a progressive rate schedule produces a "bias" whereby an anticipated gain is likely to be taxed at a higher rate than an anticipated loss. This effect is clearly deducible from the rate schedule itself and requires no statistical evidence. The figures in Table 42 neither confirm nor deny the *ex ante* bias against losses as compared with profits, but summarize the results *ex post*. For example, if high-income proprietors engage in enterprises more risky than those of low-income proprietors, the mean effective rate on total net losses can be as high, or higher, than on total net profits.

#### *Marginal Tax Rate by Sole Proprietor and Partnership Profit and Loss*

The effective rate at which the federal government has absorbed total reported profits and losses does not indicate how it absorbs profit or loss at the margin. In a private enterprise economy the question of how government affects additional enterprise or, more precisely, the results of additional entrepreneurial effort, is of particular interest. What fraction of a small change in profit or loss has been absorbed by federal income tax? The mean marginal tax rate on a 1 per cent change in reported net profits and losses has been computed for the years 1952-60 (Table 48).

If all net profits and net losses reported on taxable returns in 1960 were to change by 1 per cent, 31 per cent of the change in net profits,

<sup>15</sup> If he has an "assured" taxable income of \$34,000 from other sources and is married, a business net profit of \$2,000 will be subject to a marginal rate of 50 per cent at 1963 rates; but a net loss of the same amount will be shared at the same marginal rate because of the width of the tax bracket at that taxable income level. If the same taxable income were \$30,000 without entrepreneurial effort, the same net profit would still be shared at 50 per cent, but the loss only at 47 per cent.

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TABLE 48

MEAN MARGINAL TAX RATE ON PROFITS AND LOSSES, BY  
SOLE PROPRIETOR AND PARTNERSHIP, 1952-60

	AVERAGE MARGINAL TAX RATE ON 1 PER CENT CHANGE IN PROFIT OR LOSS			
	Sole Proprietorship		Partnership	
	Net Profits	Net Losses	Net Profits	Net Losses
	TAXABLE RETURNS			
1952	32.4	40.2	47.7	44.6
1953	31.3	36.9	40.8	45.8
1954	29.3	33.8	38.0	44.5
1955	29.3	34.2	37.6	41.9
1956	29.9	35.1	38.8	44.0
1957	30.4	34.1	39.2	45.4
1958	29.9	32.7	39.3	45.2
1959	31.3	32.6	40.2	46.5
1960	30.9	33.3	39.5	42.3
Average	30.5	34.8	40.1	44.5
	ALL RETURNS			
1952	28.9	17.1	40.8	24.8
1953	28.0	16.3	39.9	22.8
1954	24.2	15.0	36.1	22.4
1955	24.6	16.6	35.8	21.6
1956	25.6	17.3	37.2	23.6
1957	26.4	16.5	37.6	22.9
1958	26.0	16.0	37.6	26.5
1959	27.6	15.6	38.6	26.5
1960	27.2	16.7	37.9	22.0
Average	26.5	16.3	37.9	23.7

Source: See Appendix H.

and 33 per cent of the change in net losses of sole proprietors would be shared by the federal government. For partners the respective percentages were found to be 39 and 42 per cent. These marginal rates apply to taxpayers only. When nontaxable returns are included in the computation, 27 per cent of a small increase in net profits and 17 per cent of a small increase in net loss of sole proprietors is shared by the government; for partners the percentages are 38 and 22 per cent. The opposite pattern of profit and loss sharing by the government of taxable-return data and all-return data is, of course, explained by the same factors as

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the similar pattern for mean effective rates shown in Table 42 and discussed at length above. The distribution of net losses on taxable returns is slanted toward the high-income groups, whereas when net losses reported on nontaxable returns are included, the distribution shifts sharply downward.

In computing mean marginal tax rates with a 1 per cent change in profit or loss, we in effect assume a constant Lorenz curve; that is, a constant relative size distribution of unincorporated enterprise income. This amounts to saying that when net profits (losses) change, they change on average by the same relative amount regardless of size. Hence, the weights attached to the marginal tax rates found for each income group are given by the amount of unincorporated enterprise income in each group. This method of computing the mean marginal rate of tax is somewhat in contrast to the usual comparisons of marginal rates on an "additional dollar" of income. Had the latter method been used, the marginal rate for each return would have been given the same weight in computing an average. This implies that when aggregate income

TABLE 49  
AMOUNTS OF UNINCORPORATED ENTERPRISE NET PROFIT AND NET LOSS AND  
MARGINAL TAX RATE, BY INCOME GROUPS, 1957 AND 1960  
(dollars in millions)

Adjusted Gross Income (thousand dollars)	1957			1960		
	Net Profits	Net Losses	Weighted Aver- age Marginal Tax Rate for Group <sup>a</sup>	Net Profits	Net Losses	Weighted Aver- age Marginal Tax Rate for Group <sup>a</sup>
Negative AGI	90	1,052	3.8	84	1,321	3.7
0 - 2	2,054	351	4.9	1,805	355	5.9
2 - 3	2,093	181	11.5	1,849	265	11.9
3 - 5	4,822	286	16.7	4,507	411	16.3
5 - 10	7,756	355	21.1	8,306	540	21.1
10 - 25	8,852	195	31.5	9,734	324	31.2
25 - 50	4,330	122	54.1	4,934	150	53.3
50 - 100	1,853	109	66.7	1,894	122	66.6
100 - 500	601	107	80.1	571	159	80.0
500 and over	38	35	86.0	33	34	88.6
Total	32,490	2,791	28.9	33,716	3,679	31.7

Source: See Appendix H.

<sup>a</sup>The marginal rates shown are derived from average marginal rates for all tax returns in a distribution using narrower income class intervals than those shown above. In weighting the marginal rates for the smaller income groups by the amount of business and professional income in those groups, the rates shown for the larger groupings of the table depart somewhat from the rates for all tax returns.

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changes, each taxpayer's income changes by the same absolute amount. Actually, the profits and losses of high-income taxpayers tend to change by larger absolute amounts than those of low-income taxpayers.

Of course, it might be argued that marginal rates are of interest because of their effect on enterprise motivations and incentives; and that in the computation of a summary measure, such as an average, equal weight should therefore be given to each return regardless of the amount of enterprise income it represents. In effect this would call for giving each marginal rate a weight of one, instead of using multiple weights proportional to the amount of net profit or net loss reported. In Table 48 the latter method was used on the assumption that size of net profit (loss) is a rough proxy of the scope of enterprise. It has the clear advantage of attaching less weight to part-time and "tax-return" entrepreneurs and more to those whose enterprise is the major source of their income.

For the sake of completeness, however, average marginal rates, with each taxpayer given a weight of one, are presented below, alongside the rates weighted by size of profit or loss, for three years:

	<i>Sole Proprietors</i>		<i>Partners</i>	
	Net Profits	Net Losses	Net Profits	Net Losses
Mean marginal rate for \$1 change in profit or loss per taxpayer				
1957	14.8	14.7	22.7	20.9
1959	15.5	15.2	23.2	22.0
1960	15.5	14.9	23.4	21.8
Mean marginal rate for 1% change in profits and losses				
1957	26.4	16.5	37.6	22.9
1959	27.6	15.6	38.6	26.5
1960	27.2	16.7	37.9	22.0

The summary measures of marginal rates applicable to net profits and losses of course hide considerable variation. Mean marginal rates by income groups are shown in Table 49. The rate shown for each group is an average of rates weighted by the combined dollar amounts of net profits and net losses.<sup>16</sup> Over one-fifth of reported net profits and 13 per cent of net losses were on returns subject to marginal rates greater than 50 per cent.

<sup>16</sup> Because the marginal rates shown in Table 49 are weighted averages obtained from an original distribution with narrower income class intervals, the rates for net profits and net losses in each income group if separately computed would actually not be the same. This is because the distribution of net profits and net losses within each of the income groups shown in the table is not the same.

*Significance of Annual Mean Tax Rates for  
Aggregate Net Profits and Losses*

The mean effective and marginal rates presented in the preceding sections describe the actual aggregate tax experience for a year. They do not describe the tax rates a person faces at a moment of time; these can of course be obtained simply from the rate schedule, once a person's income is known. But the rates at which the actual net profits and net losses of a particular taxpayer are shared by government over time are a function of the variability of his total income. If that income is very high when his business is successful (relative to his income when his business results in loss), his profits will be shared at a much higher rate than his losses. If, for some peculiar reason, his total income is low when his business is prosperous, and high when he has a business loss, his profits will be shared by the Treasury at a lower rate than his losses. While the latter may actually be the case for some high-income taxpayers—as suggested by mean effective and mean marginal rates for taxable returns shown in Tables 42 and 48—it does not appear to be the case for the aggregate of reported net profits and net losses.

The variability of unincorporated enterprise income—that is, its ups and downs for a given taxpayer—has an effect on tax liability. The best way to determine this effect is to trace the income and tax experience of a group of identical taxpayers over a period of time. In the absence of information enabling us to do this, the annual cross-section data may give us some preliminary and rough idea. If we had only an annual distribution of net profits, and not also one of net losses, little could be learned about how tax rates vary with variations in unincorporated enterprise income; we would have no way of identifying those whose business or professional income appears temporarily low or temporarily high.

When sole proprietors and partners are each divided into two groups: those with net profits and those with net losses, we have a ready-made, though not ideal, division between those whose enterprise in a given year is in the least favorable part of its income experience and all others. Unfortunately, “all others,” that is, those with net profits, is not a category symmetrical with the net loss group. It includes not only those who are in the most favorable phase of their business experience but also some who are in their least favorable phase. As explained in the previous chapter, the tax accounting concept of net profit is so inclusive that what appears at times as a net profit on the tax return would be a net loss in the economic sense. Thus, the business income variability of some pro-

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proprietors is not caught by the net profit-net loss breakdown. Some proprietors may simply experience high net profits in some years and very low net profits in others without crossing the line from net profits to net loss. Their business income variability, therefore, remains hidden.

Variability of unincorporated enterprise income on tax returns may also be understated because on high-income returns there appears to be a bias in favor of reporting losses under sole proprietorship or partnership and against reporting profits in that form (see Chapter 3). How this bias affects mean marginal rates cannot be determined on a priori grounds, for the long-term capital gains rate is lower than the mean marginal rate on net profits of sole proprietors, and the corporate rate on the first \$25,000 of net income is less than the mean marginal rate for partners (Table 48). The mean effective rates, however, being lower than the maximum rate on long-term capital gains, tend to be understated (Table 42).

If it were not for these difficulties, the mean rates on net profit and net loss would give us an approximation of the difference in mean rates between those whose enterprises are in a phase above their long-term average and those below it.<sup>17</sup> As it is, the net loss category gives us some of the latter, but we have no adequate counterpart in the mean rates on reported net profits. Without adjustments, we would have the following range between mean rates on sole proprietorships with adverse income experience and those with favorable business experience:

	Net Profits	Net Losses	Difference Between Net Profits and Net Losses
Mean Marginal Rates (per cent)			
1959	27.6	15.6	12.0
1960	27.2	16.7	10.5
1952-60 average	26.5	16.3	10.2
Mean Effective Rates (per cent)			
1959	14.0	7.9	6.1
1960	13.6	8.3	5.3
1952-60 average	13.5	8.4	5.1

<sup>17</sup> The concept of average income in this instance refers to a person's actual, experienced average, since for the moment we are interested in the actual change in tax rates that accompanies a change in enterprise income. It is thus related to, though not the same as, Friedman's "permanent" income which "is to be interpreted as reflecting the effect of those factors that the unit regards as determining its capital value or wealth." See Milton Friedman, *A Theory of the Consumption Function*, Princeton University Press for NBER, 1957, p. 21.

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Since the mean rates on net profits reflect also the experience of some enterprises which are in the below-average income phase, the difference shown between mean rates on profits and those on losses may understate the actual spread in rates resulting from profit variability.<sup>18</sup> We may gain perspective as to the possible extent of the bias by making the extreme assumption that every person reporting net loss, which suggests that the enterprise is in an unfavorable transitory state, will eventually file a return showing net profit and an income that will place him in the group of proprietors with the highest tax rates. This amounts to selecting from the group of proprietors reporting net profits, that number with the highest total incomes equal to those reporting net loss. For instance, there were 1.8 million sole proprietor returns reporting net loss for 1960. When they recover from this temporary state, we now assume, they rise to the position held by the 1.8 million net profit returns showing the highest incomes for 1960. Under these extreme assumptions the following mean tax rates are obtained:

	<i>On Net Profits of Returns with Highest Income</i> (1)	<i>On Net Losses</i> (2)	<i>Col. 1 Minus Col. 2</i> (3)
Mean marginal rates			
1959	36.7	15.6	21.1
1960	35.8	16.7	19.1
Mean effective rates			
1959	18.9	7.9	11.0
1960	18.2	8.3	9.9

Thus, in the ranges within which unincorporated enterprise income is observed to vary, mean tax rates appear to rise by somewhat more than one-half, if simple variation from net loss to net profits is considered. If variation from observed net losses to net profits on high-income returns is assumed, mean tax rates are seen to more than double between lowest and highest income experience.

Obviously the data presented here give only the most tentative evidence on the extent of tax rate variation associated with changing business fortunes. More accurate and detailed data are needed for in-

<sup>18</sup> Because these may also be the enterprises whose income variability is small, inclusion of some of their net "profits" and tax in the group experiencing below-average income might narrow the gap in mean rates between the group with favorable and the group with unfavorable income experience. The direction of the bias in our data is thus not clear.

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formed discussion of the possible need for income averaging for tax purposes. Even if the data cited in this section give a correct picture of the variation in rates with variation in unincorporated enterprise income, nothing has been said about the time interval over which this occurs. Again, to consider possible proposals for income averaging, we require information of time periods as well as the amplitude of income fluctuations.

