Not for publication*

Abstract

NET BURDEN AND PROGRESSION OF STATE INDIVIDUAL INCOME TAXES

Emanuel Melichar
Federal Reserve Bank of Richmond*

Presented to the Virginia Social Science Association
April 21, 1962

Thirty-four states and the District of Columbia now impose an individual income tax. In considering and levying such a tax, the legislators and public of these and other states have available to them an infinite number of variations in the possible provisions regarding rates, exemptions, deductions, definition of income, and other matters. Each variation can cause the tax burden to be differently distributed among individuals in the state. Any combination of burdens can be achieved by varying the provisions, but to engage in such sport intelligently it is essential to be aware of the factors which affect the burden of the tax, and, as it turns out, to take account of the "interaction" among these factors and the alternative provisions of the tax law.

The bulk of this presentation is devoted to an investigation of the impact of the Federal income tax on state income tax burdens, in order to demonstrate the enviornment within which the analysis of alternative state rates, exemptions, deductions, etcetera, must proceed. The three provisions which exert a major impact on burdens and progression of state income taxes, in the order in which they are here discussed, are as follows:

(a) The Federal provision allowing deduction of state income tax.

(b) State provisions allowing deduction of Federal income tax.

(c) The Federal income-splitting provision.

* The views expressed herein are those of the author. This paper is based on a study (State Individual Income Taxes--Impact of alternative provisions on burdens, progression, and yields) to be published by the University of Connecticut.

In presenting this discussion in Virginia, it seems appropriate to use the Virginia income tax in the examples that are an essential part of a discussion of this sort. Emphatically, however, this paper is not a discussion of the Virginia income tax law.

All tax levies shown in the examples are calculated under the assumptions that the persons or married couples have no dependents, that all incomes consist of wages and salaries (in the case of married couples, earned solely by the husband) and that personal deductions total 10% of these incomes.

a) Impact of the deduction of state income tax on Federal returns.

The amount of state income tax paid by a taxpayer generally fails to be an appropriate measure of the actual burden of the tax. The actual burden is often lower than the tax liability because the taxpayer secures a reduction in his Federal income tax when he deducts his state tax on the Federal return. Thus the burden of the state tax is best indicated by the amount remaining after the reduction in Federal tax is subtracted from the state tax paid. This amount is hereinafter referred to as the net burden of the state income tax.

In order to make meaningful comparisons of the state income tax burdens of taxpayers with different amounts of income, it is necessary to employ some measure relating the tax burden to income. It is clear that the best measure is the proportion that the net burden is of the income which the taxpayer would otherwise be able to use to purchase goods and services. Such income can be approximated by the amount remaining after the Federal income tax the taxpayer would have paid if no state income tax were levied is subtracted from the adjusted gross income of the taxpayer. The ratio of the net burden to this income, expressed as a percentage of such income, is the principal measure employed in this study to compare relative tax burdens on taxpayers with different amounts of income, and to compare the burdens imposed by taxes with different provisions.

The spread between the actual state tax paid and net burden of the tax depends on the marginal Federal tax rate to which the taxpayer is subject--the higher the marginal Federal rate, the greater the spread. In addition, the fact that the marginal Federal rate is increased in stepwise fashion, jumping by one or more percentage points at each step, has a peculiar effect on the behavior of the net burden of the state tax as income increases. The great impact of these Federal provisions on the net burden of the Virginia income tax is brought out by the accompanying charts and tables.

b) Impact of the deduction of Federal income tax on state returns.

Many states allow the deduction of Federal income tax on the state return. At almost all incomes, this deduction is apt to be the largest of the deductions available to a taxpayer, and it is also the one most amenable to analysis because its relationship to income is known. In the charts and tables, the impact of allowing the deduction is shown by comparing tax burdens in Virginia with those imposed under the Utah tax, which has rates and exemptions much like those used in Virginia. The reduction in the amount of tax paid and in the net tax burden at the higher incomes is quite striking. It is worth noting that this provision reduces the amount of tax collected under a given set of other state provisions, whereas the Federal provision discussed in (a) does not affect the state collections.

Conclusion

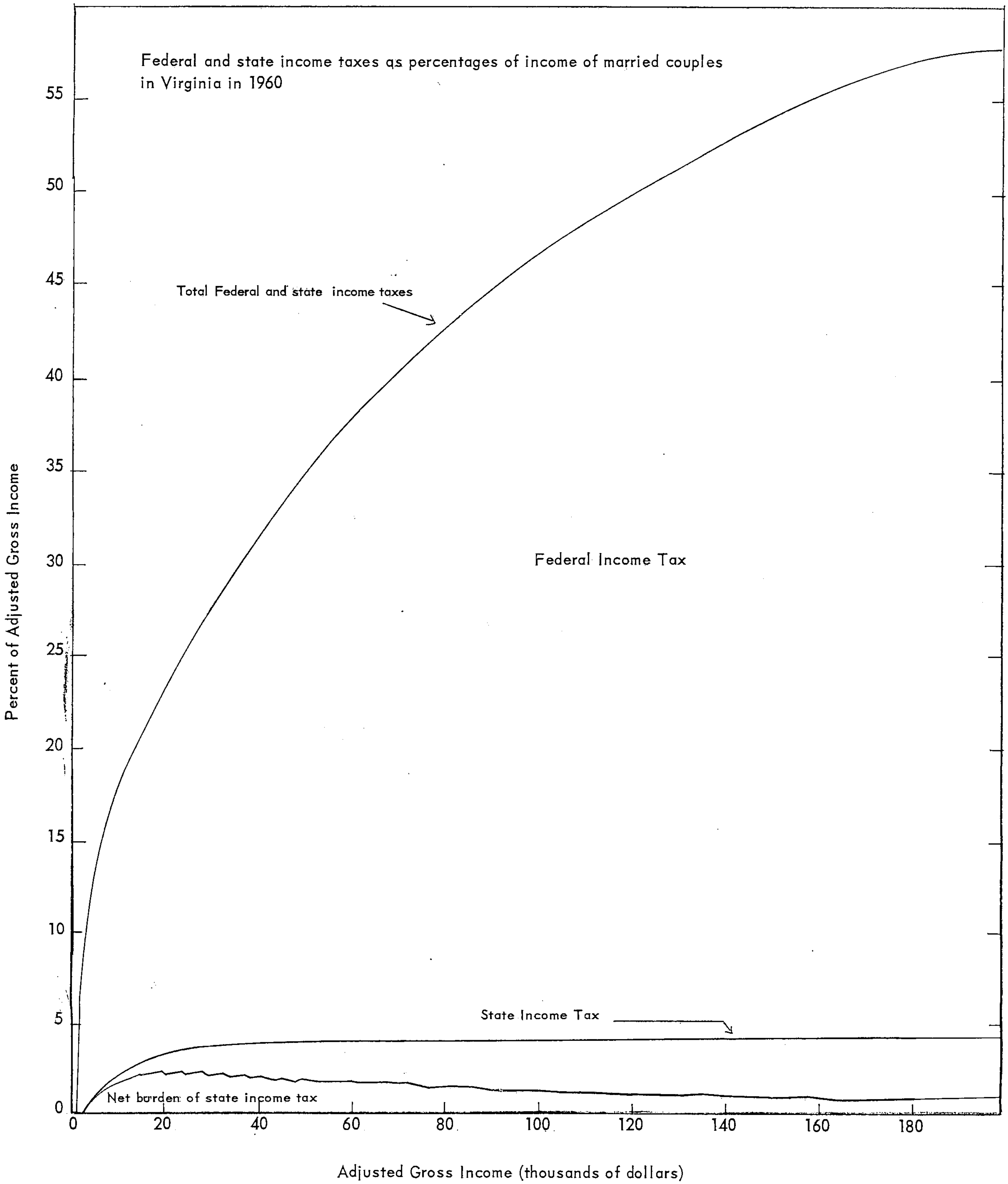
The data cited in the examples presented herein offer convincing proof that the true impact of alternative state provisions can be determined only by taking account of other pertinent factors. A possible method of analysis would be to construct charts such as the one which compares the Alaska, New York, Utah, and Virginia taxes. Given such information, more legislators and the public will be in a better position to select the combination of income tax provisions which, in conjunction with similar information on other taxes, will enable them to attain the particular distribution of tax burdens desired in the state tax system, or at least to be better informed on what distribution in fact exists.

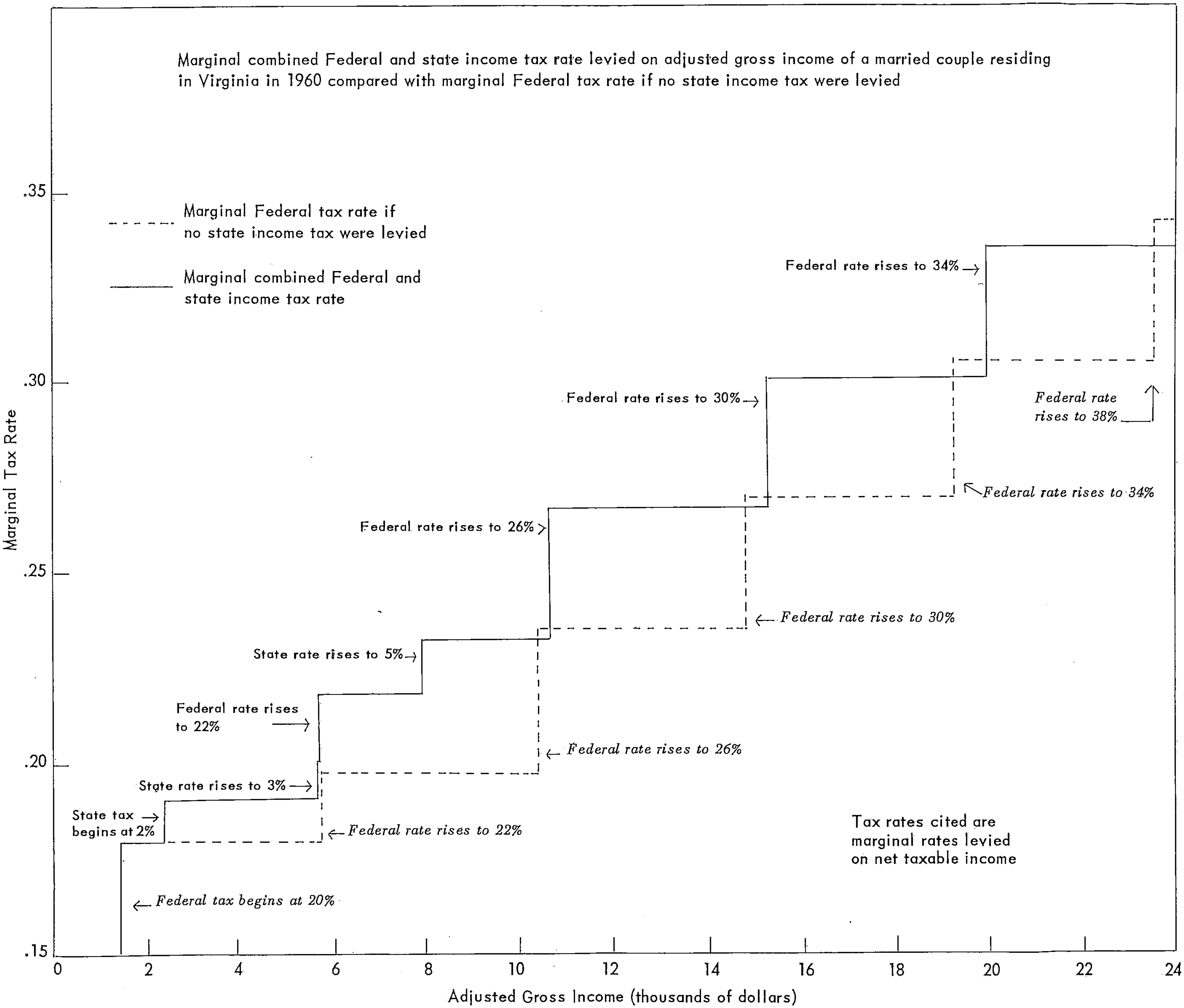
PROVISIONS AND EFFECTIVE RATES OF THE VIRGINIA INCOME TAX, 1960

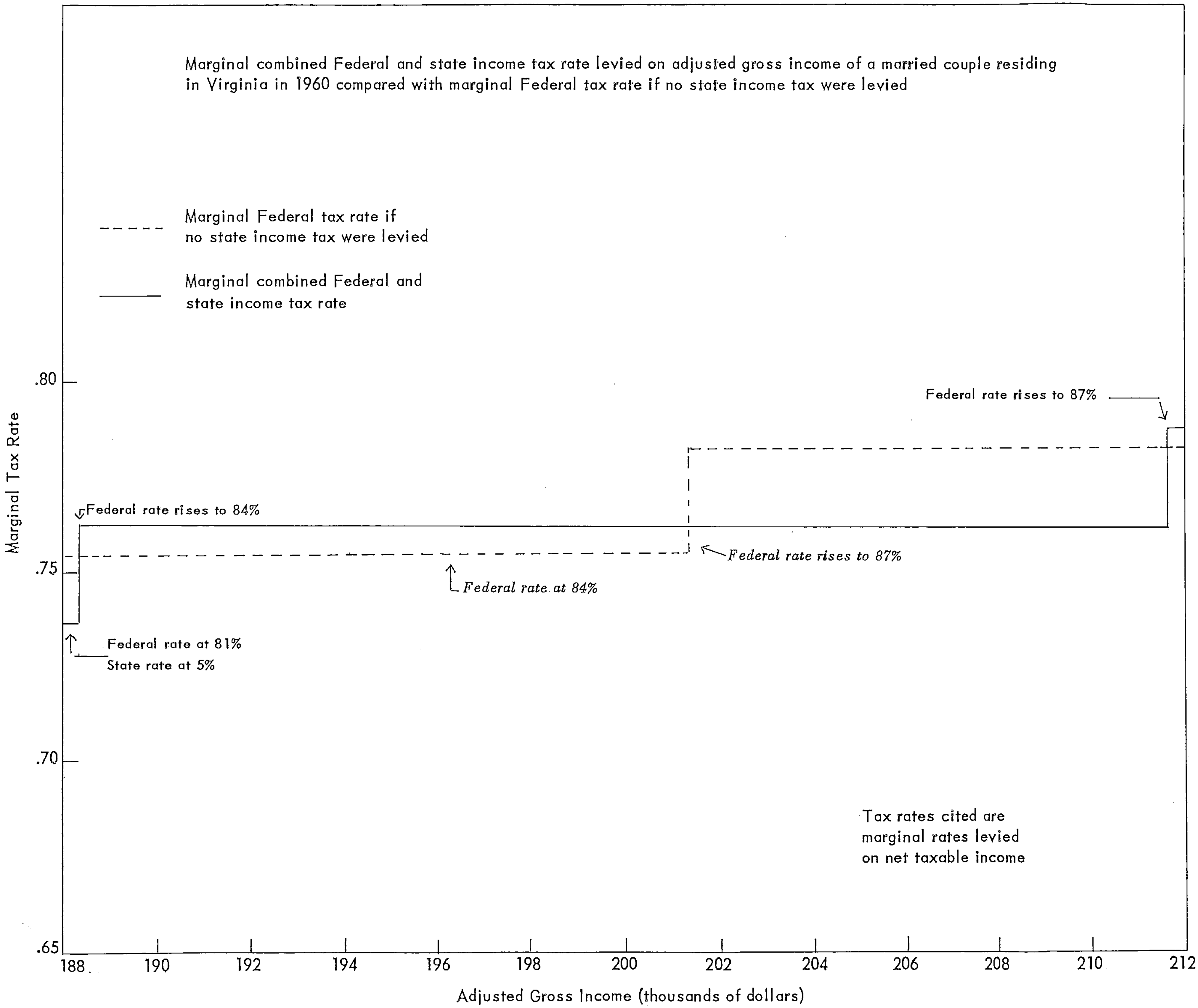
Tax Rates as Per Cent of Taxable Income				Personal Exemptions as Deductions From Income	
Taxable Income			Tax Rate	Exemption Status	Exemption
$ 0	to	$3,000	2%	Single Person	$1,000
$3,000	to	$5,000	3%	Married Couple	$2,000
$5,000	or	more	5%	Dependents	$ 200

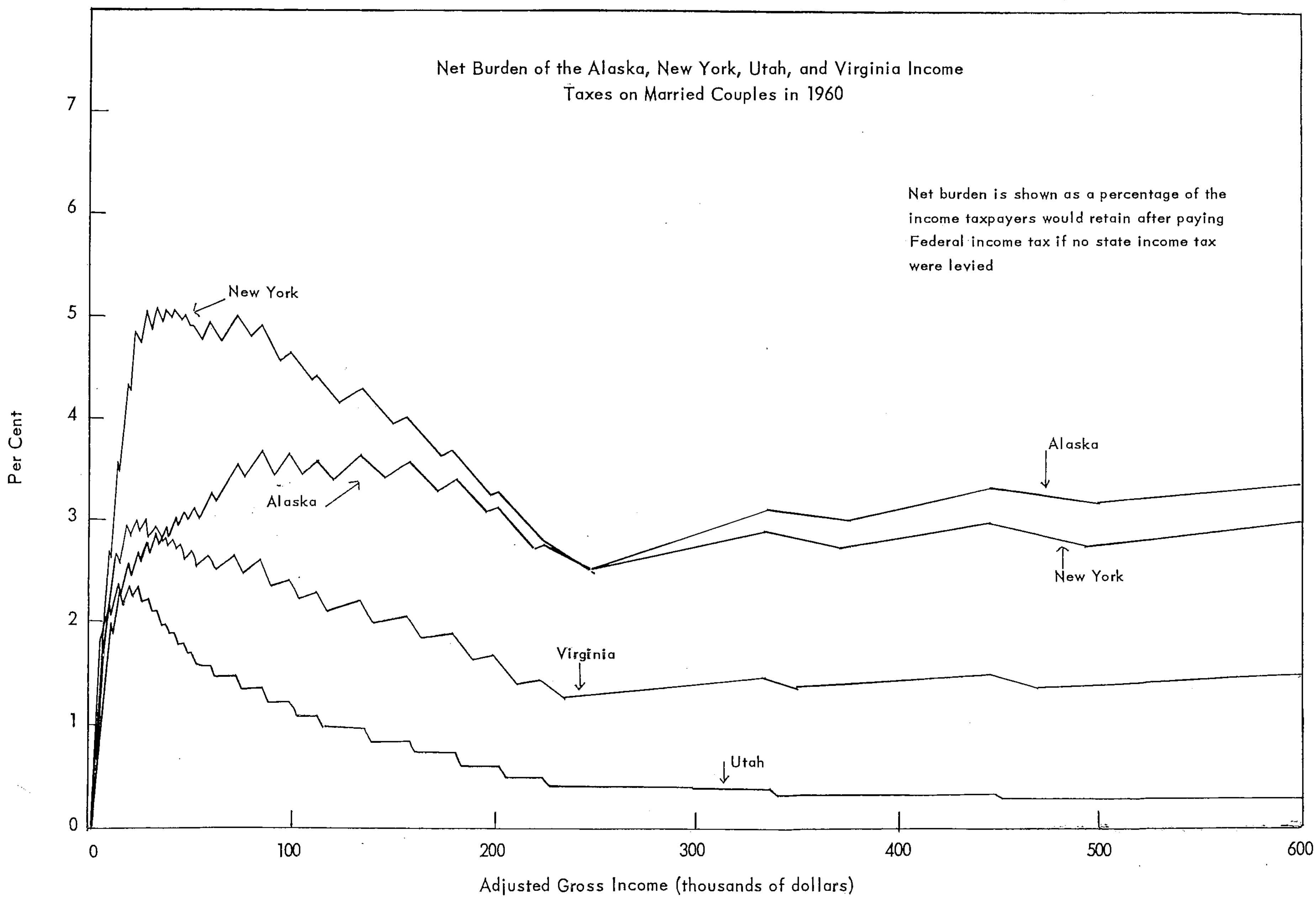
Deduction of federal income tax is not allowed in computing net income.
No income-splitting provision is used.

(1) Adjusted Gross Income	(2) Federal Tax Without State Tax	(3) Taxes With State Tax: Federal	(4) Taxes With State Tax: State	(5) Net Burden of State Income Tax (3)+(4) – (2)	(6) Residual Income (1) – (2)	(7) Net Burden as Percent of Residual Income
Income Taxes Paid by a Single Person with Various Incomes						
1,000	60	60	–	–	940	–
2,000	240	237	16	13	1,760	.73
3,000	422	415	34	27	2,578	1.03
4,000	620	609	52	41	3,380	1.20
5,000	818	802	75	58	4,182	1.40
7,500	1,405	1,358	158	111	6,095	1.81
10,000	2,096	2,004	270	178	7,904	2.25
15,000	3,787	3,574	495	282	11,213	2.52
20,000	5,900	5,540	720	360	14,100	2.55
25,000	8,324	7,795	945	416	16,676	2.49
50,000	22,788	21,348	2,070	630	27,212	2.31
100,000	58,116	54,487	4,320	691	41,884	1.65
200,000	138,280	130,342	8,820	882	61,720	1.43
500,000	383,774	363,463	22,320	2,009	116,226	1.73
1,000,000	793,274	752,488	44,820	4,034	206,726	1.95
Income Taxes Paid by a Married Couple with Various Incomes						
1,000	–	–	–	–	1,000	–
2,000	120	120	–	–	1,880	–
3,000	300	297	14	11	2,700	.41
4,000	480	474	32	26	3,520	.73
5,000	660	650	50	40	4,340	.92
7,500	1,141	1,116	112	88	6,359	1.38
10,000	1,636	1,588	220	172	8,364	2.05
15,000	2,810	2,682	445	317	12,190	2.60
20,000	4,192	3,964	670	442	15,808	2.80
25,000	5,774	5,434	895	555	19,226	2.89
50,000	16,648	15,517	2,020	889	33,352	2.66
100,000	45,576	42,606	4,270	1,300	54,424	2.39
200,000	116,232	108,865	8,770	1,403	83,768	1.68
500,000	358,048	337,782	22,270	2,004	141,952	1.41
1,000,000	767,548	726,807	44,770	4,029	232,452	1.73

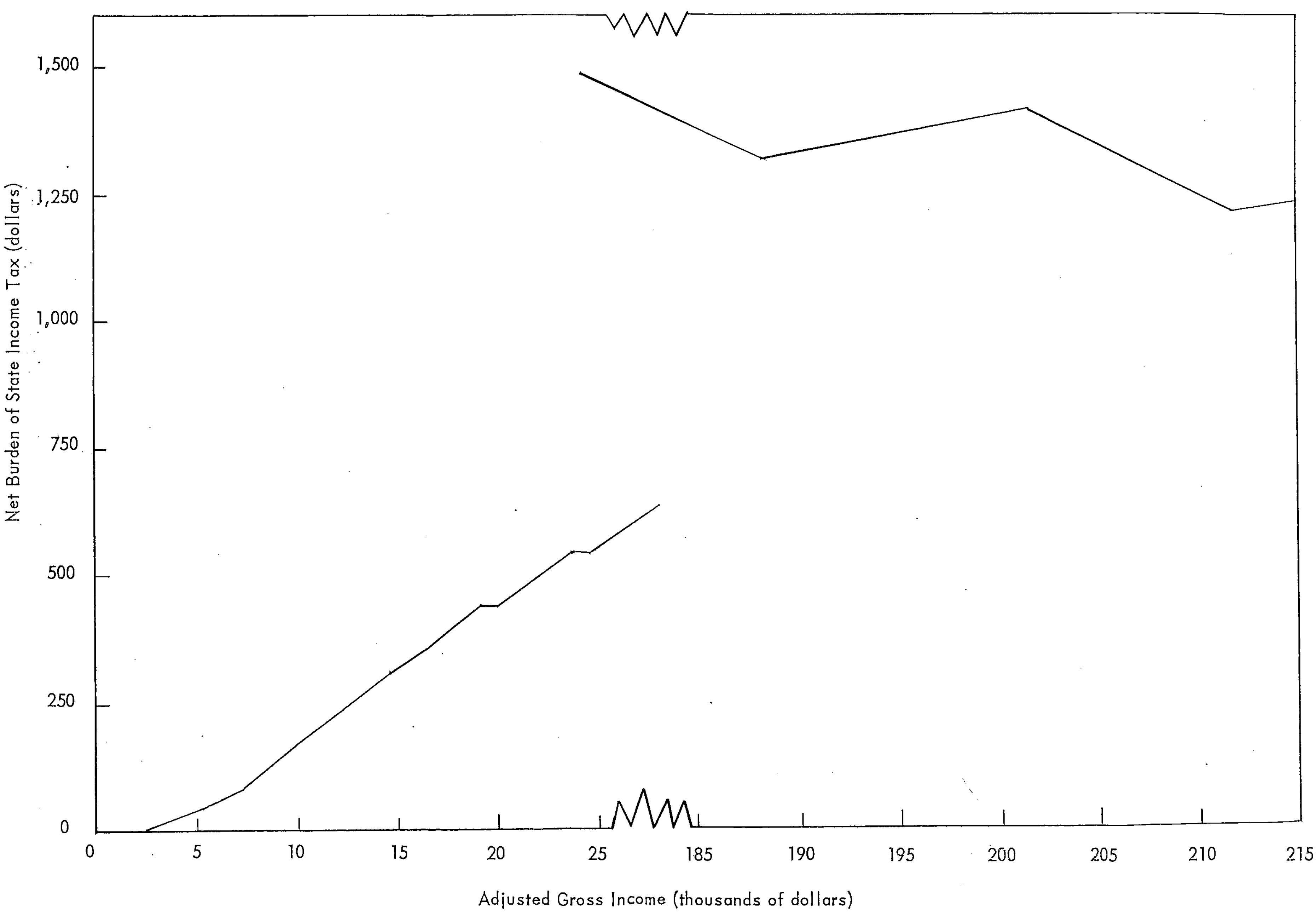

Federal and state income taxes as percentages of income of married couples in Virginia in 1960
Total Federal and state income taxes
Federal Income Tax
State Income Tax
Net burden of state income tax
Percent of Adjusted Gross Income
0
5
10
15
20
25
30
35
40
45
50
55
0
20
40
60
80
100
120
140
160
180
Adjusted Gross Income (thousands of dollars)

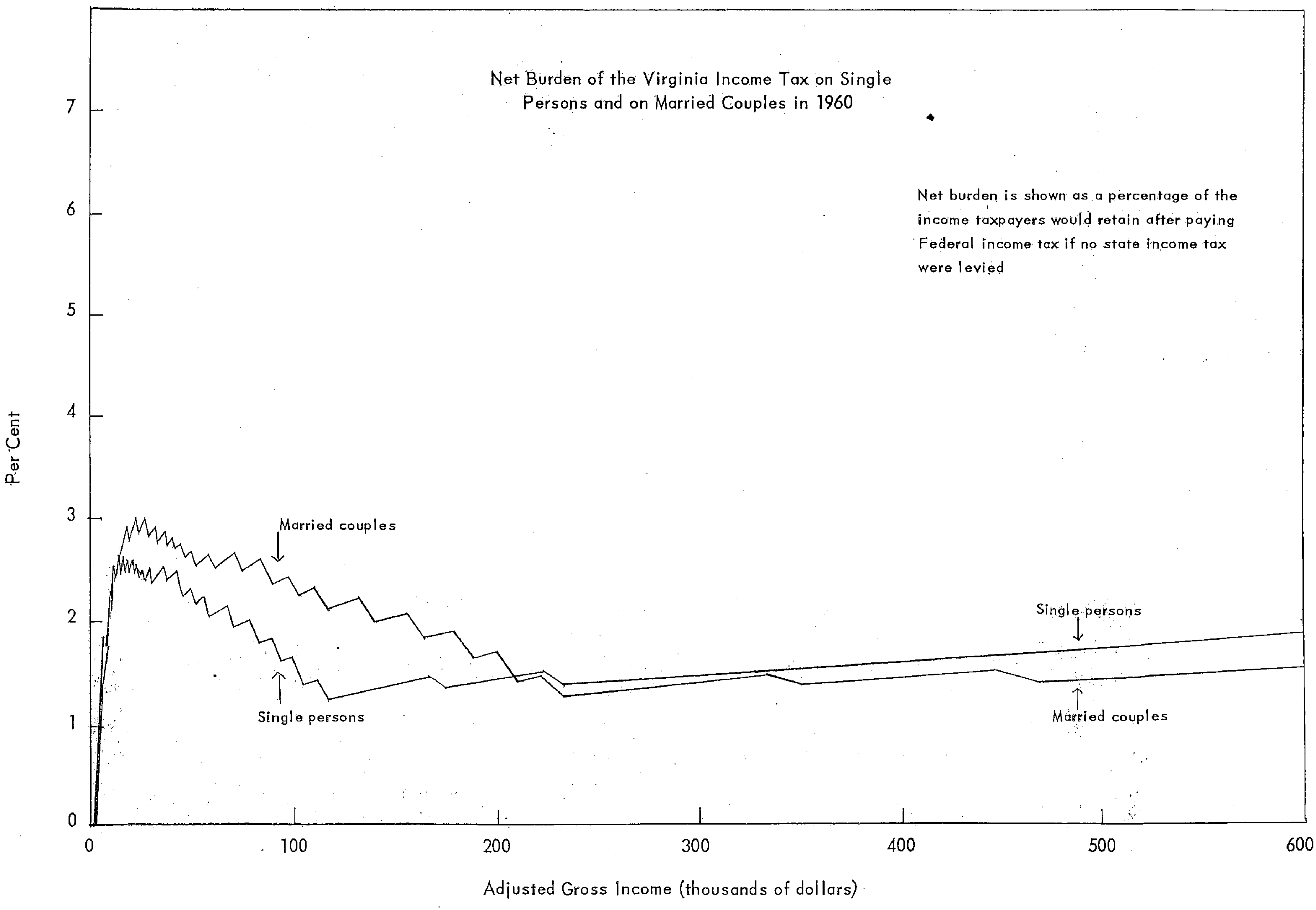

Marginal combined Federal and state income tax rate levied on adjusted gross income of a married couple residing in Virginia in 1960 compared with marginal Federal tax rate if no state income tax were levied
Marginal Federal tax rate if no state income tax were levied
Marginal combined Federal and state income tax rate
Federal rate rises to 34%
Federal rate rises to 30%
Federal rate rises to 38%
Federal rate rises to 34%
Federal rate rises to 26%
Federal rate rises to 30%
State rate rises to 5%
Federal rate rises to 22%
Federal rate rises to 26%
State rate rises to 3%
State tax begins at 2%
Federal rate rises to 22%
Tax rates cited are marginal rates levied on net taxable income
Federal tax begins at 20%
Marginal Tax Rate
.35
.30
.25
.20
.15
0
2
4
6
8
10
12
14
16
18
20
22
24
Adjusted Gross Income (thousands of dollars)


Marginal combined Federal and state income tax rate levied on adjusted gross income of a married couple residing in Virginia in 1960 compared with marginal Federal tax rate if no state income tax were levied
Marginal Federal tax rate if no state income tax were levied
Marginal combined Federal and state income tax rate
Marginal Tax Rate
.80
.75
.70
.65
Federal rate rises to 87%
Federal rate rises to 84%
Federal rate rises to 87%
Federal rate at 84%
Federal rate at 81%
State rate at 5%
Tax rates cited are marginal rates levied on net taxable income
188
190
192
194
196
198
200
202
204
206
208
210
212
Adjusted Gross Income (thousands of dollars)


Net Burden of the Alaska, New York, Utah, and Virginia Income
Taxes on Married Couples in 1960
Net burden is shown as a percentage of the income taxpayers would retain after paying Federal income tax if no state income tax were levied
New York
Alaska
Alaska
New York
Virginia
Utah
Per Cent
0
1
2
3
4
5
6
7
0
100
200
300
400
500
600
Adjusted Gross Income (thousands of dollars)

Net Burden of State Income Tax Levied on Married Couples in Virginia in 1960




Net Burden of the Virginia Income Tax on Single
Persons and on Married Couples in 1960
Net burden is shown as a percentage of the income taxpayers would retain after paying Federal income tax if no state income tax were levied
Married couples
Single persons
Single persons
Married couples
Per Cent
0
1
2
3
4
5
6
7
0
100
200
300
400
500
600
Adjusted Gross Income (thousands of dollars)

COMPARISON OF STATE INCOME TAX BURDENS ON
MARRIED COUPLES IN VIRGINIA AND UTAH

ADJUSTED GROSS INCOME	State Income Tax		Net Burden of State Income Tax		Relative Net Burden of State Income Tax	
	Virginia	Utah	Virginia	Utah	Virginia	Utah
$ 2,000	$ 0	$ 5	$ 0	$ 4	0%	.20%
3,000	14	14	11	11	.41	.42
4,000	32	29	26	23	.73	.65
5,000	50	50	40	40	.92	.91
7,500	112	122	88	95	1.38	1.49
10,000	220	211	172	164	2.05	1.96
15,000	445	380	317	269	2.60	2.21
20,000	670	540	442	356	2.80	2.25
25,000	895	689	555	427	2.89	2.22
50,000	2,020	1,294	889	569	2.66	1.71
100,000	4,270	2,136	1,300	638	2.39	1.17
200,000	8,770	3,161	1,403	506	1.68	.60
500,000	22,270	4,649	2,004	418	1.41	.29
1,000,000	44,770	6,771	4,029	609	1.73	.26

COMPARISON OF STATE INCOME TAX BURDENS ON SINGLE PERSONS AND MARRIED COUPLES IN VIRGINIA

ADJUSTED GROSS INCOME	State Income Tax		Net Burden of State Income Tax		Relative Net Burden of State Income Tax	
	Single Person	Married Couple	Single Person	Married Couple	Single Person	Married Couple
$ 2,000	$ 16	$ 0	$ 13	$ 0	.73%	0%
3,000	34	14	27	11	1.03	.41
4,000	52	32	41	26	1.20	.73
5,000	75	50	58	40	1.40	.92
7,500	158	112	111	88	1.81	1.38
10,000	270	220	178	172	2.25	2.05
15,000	495	445	282	317	2.52	2.60
20,000	720	670	360	442	2.55	2.80
25,000	945	895	416	555	2.49	2.89
50,000	2,070	2,020	630	889	2.31	2.66
100,000	4,320	4,270	691	1,300	1.65	2.39
200,000	8,820	8,770	882	1,403	1.43	1.68
500,000	22,320	22,270	2,009	2,004	1.73	1.41
1,000,000	44,820	44,770	4,034	4,029	1.95	1.73

Historical note on the Virginia individual income tax

The income tax in America dates to the first general tax law adopted in the colonies. The Massachusetts Bay Colony in 1634, assessed "each man according to his estate and with the consideration of all other his abilities whatsoever." This tax developed into the "faculty" tax--faculty being defined as income-producing ability and all persons in the same occupation generally being assessed the same amount of tax. Virginia did not levy this tax while a colony, but in 1786 it did impose a faculty tax on attorneys, merchants, physicians, surgeons, and apothecaries. This tax was abolished four years later.

Around 1840, many states were plunged into financial difficulty when the depression following the panic of 1837 found them over extended on the financing of internal improvements which did not turn out to be as self-supporting as they were supposed to be. Virginia was one of the states that passed income tax legislation with some modern elements recognizable in the definition of the tax base and the scheme of exemptions and rates. The Virginia law of 1843 allowed an exemption of $400 and taxed salaries at 1% and interest at 2.5%.

Interestingly enough, Virginia was the one state in which this sort of income tax yielded significant revenues during the pre-Civil War period. In 1853, for instance, collections were $36,000 in spite of the fact that many classes of income escaped taxation. In that year, the tax rates on salaries and fees was changed to a graduated scale ranging from 0.25% on the first $50 of taxable income to 1% on taxable income over $100, and the exemption was dropped to $200. Three years later the rates were doubled, and the yield rose to around $100,000. Since total state tax revenue was about $1 million, this amount was of some consequence. It was also a much larger sum than was collected through an income tax in any other state during this period. In general at that time, assessment, collection, and enforcement procedures were ineffective. The usual low rates and exclusion of much income under attempts to avoid double taxation were hardly conducive to good enforcement, since the amount of tax due from each taxpayer was apt to be so small that it would not warrant any large expense of enforcement.

Another flurry of income tax legislation arose in the Confederate states during the Civil War, while in the North the experiment with the income tax, as well as the major share of financing the war effort, was left to the Federal Government. Confederate states like Virginia that already had an income tax raised their rates. By 1863, Virginia law imposed a rate of 2.5% on salaries, 17% on bond interest, and 10% on profits. However, an exemption of $3,000 was allowed, and this provision undoubtedly reduced the potential yield of the tax. At the close of the war, incomes were further classified into six categories, and the rates were lowered to a maximum of 3%. Although the rapid changes in the value of Confederate money make it difficult to judge the success of the Civil War income taxes, it does appear that again only Virginia realized a significant amount of revenue from the tax.

For many years after the Civil War, only a few states continued to levy income taxes. In most of these, the law was enforced badly or not at all, and Virginia continued to be the leader in terms of revenue collected. In 1874 the Virginia tax was changed to a flat rate of 1% on all income over the exemption, and collections under this scheme were as high as $122,000 in 1908. Total state tax revenues at that time averaged about $2 million.

In the light of this historical record, it is hardly any wonder that at the beginning of this century the state income tax was in disrepute among most tax experts. A handful, however, were ready with reforms that were to start a new era for the tax. In 1912, Wisconsin passed a law providing for centralized, civil-service administration and for a system of "information at the source." The assessment for that year amounted to $3.5 million. Since no state had previously collected over $200,000 from an income tax, it was immediately apparent that a workable formula had been discovered. In the next year, the success of the Federal income tax confirmed the Wisconsin experience.

Other states subsequently adopted income taxes, in a few cases to replace the personal property tax, but mostly in response to fiscal emergencies caused by World War I, prohibition, and, in particular, the depression of the 1930's. When New York passed the tax in 1919, some authorities believed that this would be the signal for its general adoption, but it was not. When the Federal government first levied high rates, some authorities believed that the states would be forced to abandon their taxes, but instead state individual income taxes were the nation's fastest-growing major source of tax revenue during the 1950's.

During this century, Virginia gradually modernized its tax. The set of personal exemptions now used was adopted in 1936, and the present structure of rates was adopted in 1949. Collections in 1960 were $77 million, which represented about one-fourth of total state tax revenue and about 15% of total state and local tax revenue. Income tax collections increased by 222% during the preceding decade, whereas total state tax revenue grew by only 98%. Nationally, the state individual income tax yield was $2.2 billion, one-third of which was collected in New York alone. This amount was about 12% of the state tax revenue and 6% of the combined state and local tax revenue of all the states, and about 20% of the state tax revenue and 10% of the total state and local tax revenue of the states using the tax.

Virginia's collections in 1960 amounted to 12% of the Federal individual income tax collected in the state, and to 1.1% of total personal income. In other states using the tax, the ratio of state-to-Federal collections ranged from 3% in New Mexico to 24% in Oregon. This great range in relative state income tax burdens resulted from substantial variations in the provisions of the state laws.