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STATE PERSONAL INCOME AND SALES TAXES: 1977-1983

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ABSTRACT

The two main workhorses of state tax systems are levies on sales and individual incomes. In this paper we develop and implement a coherent methodology for characterizing these systems. The measures thus generated are used to show how the various systems differ across states, and how they evolved over the seven year period 1977-1983. We consider the systems' revenue elasticities with respect to income, average and marginal tax rates at various income levels, and several other issues as well.

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1. Introduction

State governments account for a large and growing amount of tax collections in the United States. In 1960, states' tax receipts were $20.2 billion, about 16% of taxes raised by all levels of government. By 1982, the figure was up to $178 billion, about 20% of all taxes.[1] The relative importance of various tax instruments in state revenue structures has changed over time. As Table 1.1 indicates, over the last several decades, state reliance upon individual income taxation has increased dramatically, while property and sales taxes have waned in relative importance. In broad terms, the two main workhorses of state tax systems are levies on sales and individual incomes, and these will be the main focus of this paper. Taxes on corporate incomes, property and the "other" category altogether accounted for only about one-quarter of all state taxes in 1982.[2]

The aggregate figures of Table 1.1 mask the very substantial differences across states in the methods used to raise revenue. Table 1.2 shows how some states, such as Delaware, Massachusetts and Oregon, rely very heavily on personal income taxation. Others--Florida, Nevada, South Dakota, Texas, and Wyoming--levy

no income tax at all. Moreover, states differ considerably in how they structure the various taxes. This is most striking in the case of personal income taxes. Nebraska's income tax is simply an excise tax on residents' federal liability. Illinois has a linear tax on federally defined adjusted gross income. On the other hand, some states rival the federal tax in complexity. Interestingly, a number of long considered changes in federal law are already in place in some state tax codes, including inflation indexing, optional separate filing for married couples, vanishing exemptions, full taxation (or complete exemption) of realized capital gains and the complete elimination of personal deductions.

The main purpose of this paper is to develop and implement a coherent methodology for characterizing the structures of state tax systems. The measures thus generated are used to show how the various systems differ and how they evolved over the seven year period 1977-1983. We believe that the availability of such measures will be of use to investigators studying a wide array of questions. A few of these are:

1. How sensitive are state tax revenue yields to changes in income?
2. How does state tax structure influence business location?
3. Do state taxes affect individuals' migration decisions?
4. How do economic and demographic characteristics

of a state's inhabitants affect the tax structure?

5. Do states take into account the tax structures of "competing" states when modifying their own systems?
6. How does inflation affect the state tax structure?
7. Does the structure of the tax system exert an independent effect on the size of the government sector?

Of course, many writers have understood the importance of state tax structures in these and other contexts. (See, for example, Oates (1975), DiLorento (1982), Greytak and Thursby (1979), Bradbury, Downs and Small (1982), Maxwell and Aronson (1979), and Advisory Commission on Intergovernmental Relations (1979)). However, previous investigators have used (admittedly) inadequate indicators of tax structure. For example, Oates (1975) characterizes each state's tax system by the proportion of revenus raised by the income tax.[3] For this procedure to be meaningful requires, inter alia, that each state income tax is more or less the same in structure. As we indicate below, this appears not to be the case. Investigators have been forced to use such measures because, as Gold (1983, p. 15) indicates, "Unfortunately, no recent estimates of elasticities are available on a consistent basis for all states."

We remedy this situation using the individual income and deduction data from a stratified random sample of 25000 actual Federal Income Tax returns. The data include the state of each

taxpayer for most returns. We have programmed the major income and sales tax rules for every state for the period 1977-83. For each taxpaying unit, then, we can estimate tax liabilities. With this information in hand, any desired summary measure of each state's tax structure can be computed. Several different measures are presented. We do not have comparable data on state corporation income taxes; hence, our study must ignore them. However, as the discussion surrounding Table 1.1 indicated, corporate taxes represent a rather small portion of state revenues.

Sections 2 and 3 of this paper discuss the personal income and sales taxes, respectively. Section 4 aggregates the results to allow characterization of the tax structures as a whole. This section also discusses the interaction of the state tax systems with the Federal income tax--how does the deductibility of state taxes (for itemizers) affect the real burden of state taxation? Section 5 presents some conclusions and suggestions for future research.

2. Personal Income Taxes

2.1 General Description

Although state personal income taxes differ significantly from state to state, they share the basic general structure of the federal tax. That is, deductions and exemptions are subtracted from adjusted gross income to obtain taxable income. A schedule converts taxable income to income tax before credits,

from which a variety of credits (sometimes refundable) are subtracted. Even so, the state taxes are not generally clones of the federal tax. As of 1983, fifteen states allowed a deduction for federal income taxes paid (seven limit the deductions), while all but four states disallowed the federal deduction for state income taxes paid. Seventeen states allow income splitting (as the federal law did before 1969) while fifteen have separate schedules for couples and individuals (only New Mexico does both). Child-care credits, rent credits, minimum and maximum taxes, among other possible features, each have found expression in at least one state. The most ubiquitous provision in state laws that have no correspondence to the federal law are the property tax credits included in thirteen states and the rent credits and deductions found in thirteen (mostly overlapping) states.

We coded the tax laws for 1977-83 using information obtained from the tax forms distributed by states to their residents and from summaries such as those published by Commerce Clearing House, the Advisory Commission on Intergovernmental Relations and the Tax Foundation. We have attempted to code every aspect of the systems which our data would allow.

2.2 Methdological Problems in Characterizing a Tax Structure

State personal income tax systems, like their Federal counterpart, are non-proportional and non-linear as well. It is

well-known that in the presence of non-proportionality, it is generally impossible to summarize completely the characteristics of a tax structure in a single number.[4] Therefore, rather than constrain ourselves to one measure, we have constructed several. Certain measures will be more useful than others depending on the particular context. We compute: (a) the elasticity of tax revenues with respect to before-tax income; (b) the average tax rates faced by "high," "middle," and "low" income taxpaying units; and (c) the corresponding marginal tax rates. For our purposes, the annual incomes of high, middle, and low income units are $40,000, $20,000, and $10,000, respectively, measured in 1979 dollars.

2.3 Procedure

Because of the complexity of the tax laws, any given summary measure for a state will depend upon the income distribution in that particular state. To facilitate comparisons across states we create a synthetic data base reflecting the distribution of income in the United States rather than in any particular state. The records in the synthetic data base are not actual tax returns. They are obtained by sorting the original 25,000 returns by filing status (single, joint, or head of household) itemization status (itemizer or nonitemizer), and age (over 65 or not). There are thus 12 (= 3 x 2 x 2) categories. Within each category the returns were ordered by adjusted gross income and divided into blocks representing approximately 1 million returns each. Each of the 96 blocks of demographically similar returns is

then averaged to form a single return with the average income, deductions and exemptions of its cohort.

With this data base and the state tax laws we can calculate summary measures for each state dependent on the law of the state, but independent of the income distribution in that state. The average tax rate is calculated as revenue divided by reported income.[5] The marginal tax rate is obtained by adding 1000 dollars to wage income on every return and finding the implied increase in tax liability. In this calculation, the change in federal tax liability associated with the income change is included in the calculation; this effect can be important in those states which allow deductibility of federal taxes. The elasticity of revenue with respect to income is found by increasing each dollar amount on the tax return (including deductions, but not exemptions) by one percent, and finding the implied percentage increase in tax liability.

Note that there is some asymmetry in the methods used to compute marginal tax rates and elasticities. The marginal tax rate calculations assume that no deductions other than federal income tax change with income, while the elasticity calculations assume that most dollar amounts also change. The reason for the difference is the fact that the two sets of numbers are likely to be put to different uses. The marginal tax rate data show the wedge between before and after tax earnings in each state; there is no reason to take into account how other deductions change at the same time. On the other hand, the elasticity calculations

indicate how revenues would change when nominal income increases by a given percentage; it therefore makes sense to try to incorporate the impact of income-induced deductions upon revenues. Of course, the assumption that other deductions and income would increase at the same percentage rate is only an approximation, but it is probably not too far wide of the mark. In every case where federal tax liability affects (next year's) state tax liability, this effect is applied to the current year.

Data limitations forced us to impute several variables that have an impact on tax liabilities: 1) Federal tax returns provide no data on household rent payments, but rent credits are an important component of state tax systems. We assumed that families with little or no property tax deductions were renters, and estimated their rent by a linear equation based on consumer expenditure data.[6] 2) Social security benefits for most households are not reported. We imputed to the income of each aged individual a benefit equal to the average benefit level in 1979. 3) In some states separate filing is allowed, but federal tax returns do not list husbands' and wives' incomes separately. We assumed that one-third of total family income could be attributed to the wife.

For some other missing variables we could not arrive at a satisfactory imputation scheme. Certain aspects of state tax systems were therefore ignored. The most important of these are: 1) Tax exempt interest. Because federal tax returns do not include interest from municipal securities, we cannot compute the

state tax liability generated by such interest. 2) Interest from federal securities. We do not know what proportion of each household's interest income is generated by federal securities; such income is not taxable by the states. 3) Property tax credits. Some states allow credits against local property taxes paid. For non-itemizers, we have no estimates of property tax liability. While we do not believe that these omissions have a major impact on our substantive results, it would obviously be desirable to re-do the calculations if and when more complete data become available.

2.4 Basic Results

The income tax elasticity results are reported in Table 2.1. The most striking feature of Table 2.1 is the substantial variation across states in the elasticities for a given year. In 1983, they ranged from 1.03 for Pennsylvania to 2.43 for New Mexico. (We exclude Connecticut, New Hampshire and Tennessee from all comparisons because they have only a small tax base limited to some property income.) The reason for New Mexico's extraordinarily high elasticity is the fact that it has a system of very generous income-related credits--so many that net revenues are very small and very sensitive to income. The mean elasticity (conditional on having an income tax) in 1983 is 1.55, with a standard deviation of 0.35. (In Table 2.1 and all succeeding tables, means are weighted by the 1979 population of the states.) The substantial heterogeneity present in the table suggests that considerable care must be taken in generalizing

about the forms of state income taxes. Similar heterogeneity is exhibited in each of the preceding years.

On average, the elasticity of state income tax systems declined between 1977 and 1983, with an average value of 1.61 in the former year, and 1.55 in the latter. However, a glance at Table 2.1 indicates substantial variations in the pattern of changes over time.

When we turn to the figures on the average and marginal tax rate faced by individuals in various positions in the income distribution (Tables 2.2a, 2.2b, 2.2c), the following story emerges.[7] From Table 2.2a, the mean marginal tax rate for high income individuals in 1977 was 5.64%, with a standard deviation of 3.56. By 1983, the figure was 5.98%, (s.d. = 3.11). The mean average tax rate for this group was lower and also rose during this period, with a value of 3.32% (s.d. = 1.76) in 1977 and 3.90% (s.d. = 1.80) in 1983. Similar trends are apparent for rates on the middle and low income taxpaying units. From Table 2.2b, the mean marginal tax rate for the middle income taxpayer rose from 4.65% (s.d. = 2.57) to 5.46% (s.d. = 2.80) over our sample period, while the average rate rose from 2.41% (s.d. = 1.22) to 3.03% (s.d. = 1.40). From Table 2.2c, for low income taxpayers, the mean marginal tax rate increased from 3.29% (s.d. = 1.69) to 4.23% (s.d. = 2.38) from 1977 to 1983, and the average rate from 1.49% (s.d. = 0.85) to 1.92% (s.d. = 1.09). The presence of some negative average tax rates in Table 2.2c is due to the presence of refundable tax credits.

A comparison of Tables 2.2a, 2.2b and 2.2c indicates that in some states, the marginal tax rate declines with income. In 1983, for example, in Alabama, the marginal tax rates on the the low, middle and high income taxpaying units were 3.78%, 3.67% and 3.25%, respectively. One reason for this phenomenon is that some states allow a deduction for taxes paid to the federal government, and such deductions increase with income. Another reason is the existence of income related credits, which could induce a high marginal tax rate for a low income household.

To summarize: All the measures we have computed suggest substantial interstate variability in personal income tax structure in a given year, as well as differences in how the systems have evolved over time. On average, however, there has been a tendency for the systems to become less revenue elastic and for the marginal tax rates to increase over time. Why have the two measures tended to move in oppposite directions? Most of the systems are not indexed for inflation. Over time, inflation has tended to push people into high tax brackets. But once in the highest bracket, the elasticity tends to decrease, in some cases going down to unity.

2.5 Results Holding The Tax Law Constant

Year to year variations in our tax structure measures come from a combination of two sources: change in nominal incomes and changes in the tax statutes. At the Federal level, considerable attention has been focussed on the phenomenon of "bracket creep"--how real tax liabilities change merely as a consequence

of changes in nominal income, without any statutory changes.[8] (See, e.g., Congressional Budget Office (1980)). Is a similar phenomenon operative at the state level? To what extent are intertemporal changes in tax structure due to nominal income changes and to what extent changes in the laws? To investigate these questions, we computed individuals' tax liabilities for every year from 1977 to 1983 assuming that the tax law stayed in its 1977 incarnation. Hence, any changes in year to year summary measures are due only to nominal income changes.

The results for elasticities are reported in Table 2.3; for marginal and average tax rates on various representative individuals in Tables 2.4a, 2.4b, and 2.4c. A comparison of Tables 2.1 and 2.3 suggests that on average, changes in the statutes made during our sample period tended to make state tax systems more revenue elastic than otherwise would have been the case. If the 1977 tax law had been in effect the entire period (ceteris paribus), the average revenue elasticity would have fallen from 1.61 to 1.42, but as noted above, the actual change was from 1.61 to 1.55. Similarly, Tables 2.2a and 2.4a indicate that statute changes during the period tended to make the systems more progressive with respect to marginal tax rates. In the absence of any changes, the marginal tax rate for the high income group would have grown from 5.64% to 5.84%, while in fact the increase was from 5.64% to 5.98%. Tables 2.2b and 2.4b indicate a somewhat different story for marginal tax rates on middle income taxpaying units; changes in the statutes have tended to make

their marginal rates slightly lower than otherwise would have been the case. Similarly, 2.2c and 2.4c suggest that statute changes lead to lower marginal rates for low income households than otherwise would have been the case. There does not appear to be a simple story to explain this pattern of change. We think that analysis of the dynamics of tax structure modification would be a useful topic for future research.

3. Sales Taxes

3.1 General Description

State sales tax systems tend to be so complicated--and sometimes eccentric--that there is no simple way to characterize all their provisions. For example, New Jersey has a special asparagus tax; New Mexico levies a tax on dentures, and Maine taxes the proceeds of some (but not all) garage sales. Still, we can summarize the important attributes of the systems. Table 3.1 shows the statutory sales tax rates for 1977-1983. All states except Alaska, Delaware, Montana, New Hampshire and Oregon levy a sales tax and have done so across the entire period. For states with a general sales tax, rates in 1983 ranged from 2% in Oklahoma to 7.5% in Connecticut. Table 3.1 also indicates each state's tax treatment of food. There is some trend towards the exemption of food; 20 states plus D.C. did so in 1977, the figure was 23 states plus D.C. by 1983. Taken together, the numbers in Table 3.1 suggest considerable heterogeneity, just as we found with the income tax.

3.2 Methodological Issues

In Section 2.2 we noted the difficulties inherent in trying to characterize a complex tax system with a single number. The same type of problems crop up here, and our solution is basically the same.

However, a new methodological problem arises in the case of sales taxation. Given that our data come from Federal personal tax returns, there is no information on individuals' consumption bundles. Hence, on the basis of our data alone, we can generally calculate neither sales tax liabilities, nor how these liabilities would change with changes in income. It is therefore necessary to impute a sales tax liability to each household based upon its income and family size.[9]

Our initial plan for doing the imputation was a straightforward three step procedure. First, compile a detailed history by state of the tax rates applied to each expenditure category. Second, utilize data from the Consumer Expenditure Survey (CES)[10] to estimate equations for each expenditure category, and use the parameters to estimate expenditures in the various categories for each of the households in our sample. Third, multiply each expenditure category by the appropriate tax rate in order to find tax liability.

Unfortunately, we ran into trouble right at the first step. A detailed history by state of sales tax rates and coverage proved impossible to obtain. However, several reference books did show the general rates through time, and also indicated if

food was exempt. (This is essentially the information contained in Table 3.1.) We therefore used the CES to estimate equations for only 2 categories: "food" and "goods other than food."

This simplification proved to be unsatisfactory. The results, when multiplied by population weights, simply did not give very good predictions of sales tax revenues by state. While part of the error may have related to our omission of the sales tax liabilities of firms, we believe that the main problem was that the broadness of the sales tax base varied significantly across states in a way not captured by the simple food/non-food distinction.

An alternative method that turned out to be much more successful relied on the "Optional State Sales Tax Tables" which are included by the Internal Revenue Service (IRS) in the standard package of personal income tax instructions (Form 1040). It turns out that since 1978, these tables have been derived from the CES in much the same manner as described above. There is one big difference, however--the Internal Revenue Service had the benefit of a set of questionnaires filled out each year by the states detailing their laws, and was able to divide coverage into 24 categories rather than the 2 categories we used.

The IRS calculations do have several limitations from our point of view. First, they exclude sales tax liabilities on cars, boats and mobile homes. Second, certain states tax liquor and a few other items at a different rate from the general rate. Such taxes are not deductible on the federal return and are not

included in the IRS computations. Third, the calculation takes no account of the possible impact of interstate differences in relative prices. Fourth, no allowance is made for inflation.

Of these problems, the fourth is certainly the most important, and is easily corrected by adjusting all amounts by the change in the Personal Consumption Deflator. Given the importance of automobile expenditures in the sales tax base, we impute them on the basis of a simple regression relating these expenditures to income and family size.[11] We have not tried to account for the other items in the previous paragraph, but believe that they are relatively minor.

The IRS tabulates national data into 14 income classes for 6 family sizes. In each of the 84 cells average sales tax liability is calculated from reported expenditures. Where family size seems not to affect the sales tax liability significantly, adjacent family sizes are grouped. This is typically the case where food is exempt. The figures actually reported on the Form 1040 are then obtained by smoothing with the regression

$$\log(\text{sales tax liability}) = a + b \log(\text{AGI}),$$

which is estimated with 14 observations for each family size in each state. Although the regression parameters are not published, they are obviously easily recovered from the tables.

To reduce the number of parameters, we fit to the tables an equation which included family size as a regressor instead of estimating a separate equation for each family size. Moreover, to facilitate interpretation of the parameter estimates, we subtracted from log(AGI) the log of $15,800, which was about the median value in 1979; and we subtracted from family size its

mean, 2.4:

(3.1) log(sales tax liability) = a + b[log(AGI) - log(15,800)] + c (family size - 2.4).

Of course, subtracting the constants does not change the values of b and c, but it does allow us to interpret the constant a as the logarithm of the tax liability on a family with "typical" characteristics. We also experimented with a specification that was quadratic in family size. Generally, the squared term was statistically insignificant, suggesting that over the range of family sizes in the data, linearity is a satisfactory approximation.

3.3 Results

Table 3.2 shows the results when equation (3.1) is estimated for each state. Several features of the table require comment. First, the 1977 coefficients look rather different from those for subsequent years. They were presumably not produced by exactly the procedure described above. Second, c is typically about 0.1 for states taxing food and about 0.05 for the others. Other things being the same, larger families pay more sales tax in states where food is not exempt. Third, the tax is apparently quite regressive with respect to annual income.[12] (In 1983, the lowest value of b is .57 for Hawaii, and the highest is .73 for Pennsylvania, ~~(1978-1982)~~.

As suggested earlier, sales tax systems vary not only by revenue elasticities with respect to income, but also by

comprehensiveness. It is useful to have a simple index number which measures the size of the sales tax base in each state. To obtain such a number, we: (i) compute the revenues that actual sales tax system would raise if applied to our standard set of taxpayers; (ii) compute the revenue that would be raised by an income tax levied on AGI at the same rate as the sales tax; and (iii) take their ratio. The higher this ratio, the more comprehensive the sales tax base. It might have been more desirable to include in the denominator the revenue that would have been raised by applying the general rate to all consumption rather than AGI. Unfortunately, we do not have consumption data. In any case, we do not think that this will have much of an impact on interstate comparisons.

The results are reported in Table 3.3. The variation in the value of the ratio across states--almost 3 to 1 from largest to smallest--is quite striking. Interestingly, in 1983 Hawaii, which had the lowest revenue elasticity (recall Table 3.2), had the broadest base, while Pennsylvania, with the highest revenue elasticity, had the second smallest base.

4. Income and Sales Taxes Considered Together

In this section we consider income and sales taxes as a single "structure." When income increases, how does the sum of personal income and sales tax liabilities change? As noted above, for most states, such information goes a long way in characterizing the entire state tax structure.

Table 4.1 shows the income elasticity of combined income and sales tax liability for each state between 1977 and 1983. As one would expect, as a matter of arithmetic, the combined elasticities are smaller than those associated with the income tax, but larger than the sales tax. The result is a set of income-sales taxes that are close to proportional--the average value of the elasticity in 1983 was 1.10. Two other aspects of Table 4.1 are noteworthy:

(i) The temporal decline in the elasticity of the combined system is much less marked than the decline in the elasticity of the income tax alone. (The average elasticity of the combined system falls from 1.14 to 1.10, while from Table 2.1, the average elasticity of the income tax alone fell from 1.61 to 1.55.) Over time, the fact that a greater proportion of revenue was generated by the relatively elastic income tax tended to counterbalance the fact that the income tax itself was becoming less elastic.

(ii) The combined system is just about as variable as the income tax system alone. In 1983, the coefficient of variation for the elasticity of combined systems was 0.24; for the income tax alone the figure was 0.23. We have already observed that viewed individually, the income and sales tax systems differ considerably across states. When the systems are aggregated, these differences do not somehow "cancel out."

Tables 4.2a, b, c show the marginal and average tax rates of the combined system for high, medium and low income individuals, respectively. For all three income groups, the general tendency

has been for marginal and average rates to increase over time. In 1983, for high income individuals the highest marginal and average tax rates were in Minnesota (marginal rate = 11.16%, average rate = 10.44%). For middle income taxpaying units, the highest marginal rate was again Minnesota's (11.91%), and it also had the highest average rate (8.90%). For low income taxpayers in 1983, the highest marginal rate was in Minnesota (12.05%), and the highest average rate in Hawaii (6.84%).

To facilitate across state comparisons, Table 4.3 records marginal and average rates for the three income groups for the year 1983.

So far our calculations we have ignored the fact that taxpayers who itemize on their federal returns can deduct all state income and general taxes taxes. In Table 4.4 we exhibit the impact of federal deductibility on the effective rates of the combined income-sales tax structures. Unlike previous tables, for this exercise we used the actual income distribution of taxpayers in each state, not the synthetic distribution described above. For this particular exercise to be interesting, federal marginal tax rates must differ across states, and of course they cannot if the states have the same income distributions. As one expects, the proportion by which gross and net tax rates differ varies considerably from state to state. Presumably, such differences should be taken into account in studies of the state demand for public goods.

5. Concluding Remarks

We have computed a number of summary measures characterizing state personal income and sales tax systems over the period 1977-1983. We believe that the availability of such measures will be of use to both academic researchers and policymakers. Still, we should re-emphasize some caveats:

(i) Although personal income and sales taxes comprise most of state tax revenues, they do not comprise all of the revenues. Differences in corporate income, property and other taxes could alter our results.

(ii) All the measures use annual income as the point of reference. For many problems, some indicator of permanent income is more appropriate.

(iii) The measures tell us only the statutory incidence of the various taxes. Standard theoretical considerations suggest that the economic incidence may be quite different. Having pointed this out, we hasten to add that any serious study of the economic incidence of state tax systems must begin with careful measures of their structures.

(iv) We have not considered the role of local public finance. It might be that ignoring how localities raise their money leads to a misleading picture of the overall tax structure facing each state's citizens. Again, however, a good start on this problem requires an adequate representation of the state systems.

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FOOTNOTES

1. Calculated from Tax Foundation, Inc. [1983, p. 26].

2. There are also non-tax forms of revenue such as user charges, revenues from state owned liquor stores, etc. These are not considered in this paper.

3. "...the extent of reliance on income taxation should provide a reasonable approximation to the relative elasticity of the tax structure." (Oates (1975, p. 147)).

4. See Musgrave and Thin (1948) and Formby and Sykes (1984). An analogous problem arises in trying to summarize the degree of inequality in an income distribution. See, e.g., Atkinson (1970).

5. We compute the average tax rate as the average of each individual's average tax rate. Marginal tax rates and elasticities are computed analogously.

6. Specifically, take the grouped data on rent and income presented in Table 16 of U.S. Department of Labor [1977] and estimate the regression: Rent = 1750 + 0.1 Income. Because the constant term in the regression applies to 1972-3 data, it is

inflated to 1979-83 levels.

7. The calculations for each income level involve the returns of households within a range of those levels. The ranges are $8-12,000 for the $10,000 level; $16-24,000 for the $20,000 level; and $32-48,000 for the $40,000 level.

8. Partial indexing of the federal personal income tax is due to begin in 1984 with respect to taxes due in 1985. At one time or another, seven states had some provisions for indexing their personal income taxes.

9. A general discussion of the problems involved in using one data set to impute values for another is provided by Feenberg and Rosen (1983).

10. The 1972-73 CES was used. As of mid 1984 this is the only comprehensive source of individual consumption data. However, a 1982 survey should become available soon. As an alternative to using actual tax returns with imputed consumption data, we might use the CES as a source of both income, deduction, and consumption data. The CES is not, however, a satisfactory source of income data for high income individuals.

11. The regression, based on cross tabulations in Bureau of Labor Statistics (1978), is: log(expenditure) = 6.74 + .687 Income + .052 (Family Size). (The expenditures include autos, trucks, and boats.)

12. Of course, we are referring to the statutory incidence of the sales tax. Tax shifting could, in principle, affect the ultimate distributional implications of the tax.

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Table 1.1

Percent of State Tax Revenues From Each Type of Tax*

Source	1960	1970	1982
Property	3.4	2.3	1.9
Sales[a]	60.2	56.4	45.3
Individual Income	12.2	19.1	28.1
Corporation	6.5	7.8	8.6
Other[b]	17.7	14.4	16.1

*Computed from Tax Foundation, Inc. (1983, p. 251).

[a]Sum of general sales tax revenues plus those on motor vehicles fuels, tobacco products, alcoholic beverages, and motor vehicle licenses.

[b]Includes death and gift, severance, and other taxes.

Table 1.2

Percent of State Taxes Raised From Various Sources*
(fiscal year 1980)

State	Sales	Personal Income	Property	Other**
Alabama	61.8	21.4	2.6	14.2
Alaska	3.8	7.0	11.8	77.4
Arizona	62.8	17.1	7.2	12.9
Arkansas	53.8	27.2	.3	18.7
California	44.4	33.1	3.5	19.0
Colorado	50.8	30.9	.2	18.1
Connecticut	62.0	5.7	0.0	32.3
Delaware	14.4	45.7	0.0	39.9
Florida	73.8	0.0	1.8	24.4
Georgia	55.3	31.9	.4	12.4
Hawaii	61.5	31.2	0.0	7.3
Idaho	45.6	32.5	0.0	21.9
Illinois	52.0	26.9	1.5	19.6
Indiana	65.3	20.7	1.1	12.9
Iowa	44.5	34.5	0.0	21.0
Kansas	50.0	26.4	1.5	22.1
Kentucky	46.9	23.6	8.2	21.3
Louisiana	49.6	10.3	.0	40.1
Maine	56.2	23.0	2.5	18.3
Maryland	45.2	39.7	3.0	12.1
Massachusetts	34.4	47.5	.0	18.1
Michigan	43.0	32.2	2.2	22.6
Minnesota	38.0	39.4	.1	22.5
Mississippi	71.5	11.9	.4	16.2
Missouri	54.7	28.8	.2	16.3
Montana	21.8	31.0	4.2	43.0
Nebraska	54.7	28.9	.3	16.1
Nevada	82.1	0.0	4.4	13.5
New Hampshire	49.9	3.9	3.1	43.1
New Jersey	47.1	24.5	1.8	26.6
New Mexico	58.0	5.1	2.6	34.3
New York	36.3	45.5	.0	18.2
North Carolina	44.0	36.7	1.4	17.9
North Dakota	51.5	14.3	.6	33.6

Table 1.2 (cont'd)

Ohio	55.7	21.7	3.0	19.6
Oklahoma	38.2	20.4	0.0	41.4
Oregon	11.8	59.6	0.0	28.6
Pennsylvania	48.6	23.1	2.5	25.8
Rhode Island	54.1	27.9	1.1	16.9
South Carolina	56.0	29.5	.4	14.1
South Dakota	86.1	0.0	0.0	13.9
Tennessee	85.1	1.6	0.0	13.3
Texas	64.6	0.0	.7	34.7
Utah	55.2	33.8	0.0	11.0
Vermont	48.0	31.2	.1	20.7
Virginia	44.2	40.2	.9	14.7
Washington	74.6	0.0	16.2	9.2
West Virginia	69.4	20.7	0.0	9.9
Wisconsin	38.8	42.5	2.8	15.9
Wyoming	55.3	0.0	5.9	38.8

*Tax Foundation, Inc. (1981, pp. 224-25).

**Includes taxes on corporation net income, death and gift taxes, severance taxes, license fees, and other taxes. Excludes unemployment tax collections.

Table 2.1
Elasticity of Personal Income Tax Liability With Respect to Income

state	1977	1978	1979	1980	1981	1982	1983
alabama	1.32	1.28	1.24	1.19	1.18	1.18	1.18
alaska	1.52	1.91	.	.	.	.	.
arizona	1.41	1.38	1.44	1.69	1.77	1.81	1.76
arkansas	1.58	1.57	1.54	1.52	1.50	1.48	1.47
californ	2.06	2.03	2.03	2.19	2.17	2.18	2.14
colorada	1.57	1.57	1.55	1.43	1.44	1.46	1.47
connecti	1.19	1.16	1.15	1.18	1.15	1.18	2.12
delaware	1.64	1.63	1.61	1.59	1.56	1.55	1.54
district	1.75	1.67	1.63	1.60	1.60	1.56	1.55
florida	.	.	.	.	.	.	.
georgia	1.70	1.66	1.62	1.58	1.52	1.48	1.48
hawaii	1.54	1.50	1.46	1.51	1.50	1.54	1.53
idaho	1.68	1.63	1.58	1.59	1.55	1.51	1.49
illinois	1.21	1.19	1.17	1.16	1.15	1.14	1.14
indiana	1.17	1.16	1.14	1.21	1.21	1.19	1.18
iowa	1.47	1.66	1.54	1.51	1.41	1.49	1.43
kansas	1.56	1.57	1.54	1.55	1.53	1.52	1.52
kentucky	1.43	1.40	1.35	1.30	1.28	1.26	1.26
louisian	2.23	2.13	2.02	1.94	2.48	2.48	2.20
maine	2.03	2.09	1.99	1.93	1.89	1.85	1.81
maryland	1.33	1.31	1.29	1.26	1.26	1.24	1.23
massachu	1.31	1.25	1.23	1.22	1.29	1.27	1.29
michigan	1.44	1.34	1.36	1.43	1.41	1.37	1.32
minnesot	1.85	1.74	1.93	1.88	1.80	1.73	1.82
mississi	2.00	1.97	1.88	1.80	1.89	1.83	1.88
missouri	1.69	1.65	1.60	1.55	1.53	1.51	1.49
montana	1.42	1.40	1.49	1.52	1.43	1.47	1.50
nebraska	2.01	1.99	1.93	2.07	1.99	1.93	1.86
nevada	.	.	.	.	.	.	.
new hamp	1.49	1.47	1.46	1.40	1.39	1.38	1.37
new jers	1.55	1.53	1.50	1.50	1.47	1.44	1.40
new mexi	3.80	3.42	3.27	2.92	3.37	2.67	2.43
new york	1.69	1.69	1.68	1.62	1.56	1.59	1.57
n caroli	1.47	1.46	1.43	1.42	1.41	1.39	1.38
n dakota	1.78	1.76	1.62	1.58	2.06	1.76	1.62
ohio	1.76	1.73	1.69	1.66	1.63	1.69	1.74
oklahoma	1.98	1.98	1.90	1.83	1.80	1.83	1.78
oregon	2.05	2.01	2.05	1.97	1.91	1.79	1.67
pennsylv	1.09	1.04	1.03	1.06	1.05	1.04	1.03
rhode is	1.73	1.74	1.73	1.75	1.72	1.71	1.71
s caroli	1.73	1.64	1.60	1.56	1.54	1.51	1.50
s dakota	.	.	.	.	.	.	.
tennesse	1.00	1.00	1.00	1.00	1.00	1.00	1.00
texas	.	.	.	.	.	.	.
utah	1.37	1.33	1.29	1.24	1.21	1.20	1.20
vermont	2.06	2.00	1.70	1.73	1.70	1.88	1.68
virginia	1.62	1.60	1.57	1.53	1.47	1.45	1.44
washingt	.	.	.	.	.	.	.
w virgin	1.50	1.52	1.53	1.52	1.52	1.54	1.77
wisconsi	1.92	2.41	2.16	1.87	1.86	1.86	1.71
wyoming	.	.	.	.	.	.	.
federal	1.75	1.75	1.77	1.76	1.73	1.72	1.72
mean	1.61	1.60	1.57	1.57	1.56	1.55	1.55
std dev	0.36	0.37	0.35	0.35	0.38	0.37	0.35

Table 2.2a

State Personal Income Tax Rates at 40000 (1979 dollars) AGI

state	Marginal Rate							Average Rate						
	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	3.25	3.21	3.16	3.04	2.99	3.10	3.25	2.81	2.86	2.94	2.94	2.95	2.91	3.00
alaska	5.18	5.39	.	.	.	.	.	3.57	3.12	.	.	.	.	.
arizona	4.77	4.71	4.62	4.44	4.33	4.50	4.71	3.54	3.62	3.42	3.20	3.04	3.07	3.27
arkansas	6.88	7.00	7.00	7.00	7.00	7.00	7.00	4.11	4.26	4.44	4.62	4.75	4.84	4.87
californ	9.73	9.90	10.24	9.71	9.73	9.58	9.76	4.16	4.28	4.40	4.08	4.10	3.94	4.18
colorada	4.78	4.72	4.10	3.94	3.61	4.48	4.76	3.10	3.10	2.63	2.64	2.42	2.98	3.18
connecti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.06	0.06	0.07	0.07	0.07	0.07
delaware	8.25	8.42	8.71	8.64	8.87	9.16	9.24	4.66	4.82	5.13	5.18	5.35	5.49	5.58
district	8.76	8.89	9.11	9.57	9.77	9.83	9.95	4.89	5.07	5.29	5.55	5.75	5.91	6.01
florida	.	.	.	.	.	.	.	.	.	.	.	.	.	.
georgia	6.00	6.00	6.00	6.00	6.00	6.00	6.00	3.58	3.68	3.81	3.94	4.03	4.10	4.13
hawaii	8.54	8.72	8.79	8.85	8.98	9.13	9.12	5.42	5.55	5.72	5.71	5.85	5.78	6.02
idaho	7.50	7.50	7.50	7.50	7.50	7.50	7.50	4.68	4.79	4.93	4.91	5.02	5.10	5.16
illinois	2.50	2.50	2.50	2.50	2.50	2.50	3.00	2.27	2.29	2.31	2.33	2.35	2.36	2.78
indiana	2.00	2.00	1.70	1.90	1.90	1.90	3.00	1.83	1.84	1.57	1.76	1.77	1.78	2.82
iowa	4.47	4.59	4.65	4.69	4.72	5.02	5.49	3.02	3.12	3.18	3.26	3.34	3.55	3.76
kansas	4.43	4.48	4.51	4.44	4.45	4.65	4.87	2.49	2.52	2.67	2.63	2.66	2.86	3.03
kentucky	3.76	3.74	3.73	3.65	3.58	3.72	3.90	2.72	2.78	2.90	2.94	2.97	3.12	3.25
louisian	3.20	3.62	4.00	4.00	3.53	3.89	4.00	1.19	1.29	1.48	1.65	1.09	1.19	1.51
maine	7.93	8.33	8.59	8.80	9.00	9.20	9.20	3.43	3.43	3.85	4.18	4.42	4.61	4.73
maryland	5.00	5.00	5.00	5.00	5.00	5.00	5.00	3.61	3.63	3.64	3.70	3.74	3.77	3.78
massachu	5.37	5.37	5.37	5.37	5.37	5.37	5.37	4.92	4.98	4.99	4.97	4.85	4.86	4.81
michigan	4.60	4.60	4.60	4.60	4.60	5.10	6.35	3.84	3.89	3.95	4.01	4.05	4.53	5.67
minnesot	9.75	9.74	9.48	9.11	8.96	9.69	9.75	7.67	7.61	7.46	7.31	7.15	7.95	8.33
mississi	3.77	3.84	3.87	3.87	3.87	3.87	4.64	1.88	1.98	2.10	2.23	2.16	2.23	2.50
missouri	3.56	3.53	3.56	3.50	3.48	3.65	3.86	2.06	2.14	2.25	2.34	2.35	2.50	2.63
montana	5.43	5.49	5.46	5.47	4.97	5.18	5.52	3.57	3.69	3.58	3.55	3.43	3.54	3.71
nebraska	5.58	5.72	6.63	5.88	6.04	6.83	7.00	2.51	2.58	2.91	2.54	2.67	3.00	3.09
nevada	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new hamp	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
new jers	2.52	2.52	2.52	2.52	2.52	2.52	2.52	1.78	1.83	1.89	1.90	1.95	1.99	2.05
new mexi	4.90	5.02	5.33	5.76	4.57	6.29	8.30	1.58	1.75	1.84	2.10	1.60	2.42	3.38
new york	12.61	12.50	12.36	11.54	10.71	10.71	10.71	6.56	6.79	7.08	7.16	7.08	7.08	7.16
n caroli	6.78	6.82	6.87	6.94	7.00	7.00	7.00	4.39	4.51	4.66	4.75	4.83	4.92	4.97
n dakota	5.44	5.63	2.83	2.76	2.73	3.52	3.68	2.79	2.96	1.68	1.72	1.50	2.18	2.55
ohio	2.85	2.85	2.93	3.08	3.17	4.06	6.09	1.75	1.82	1.91	2.01	2.09	2.69	3.87
oklahoma	5.28	5.42	5.44	5.45	5.41	5.77	5.64	2.36	2.55	2.85	3.04	3.19	3.29	3.46
oregon	8.79	9.31	8.21	8.65	9.23	9.92	9.50	2.97	3.13	2.85	3.04	3.19	3.83	4.15
pennsylv	2.00	2.20	2.20	2.20	2.20	2.20	2.45	2.04	2.25	2.25	2.25	2.26	2.26	2.51
rhode is	6.63	6.79	7.00	7.45	7.75	8.31	9.37	3.24	3.31	3.27	3.52	3.71	3.91	4.33
s caroli	6.55	6.67	6.78	6.87	6.94	7.00	7.00	3.41	3.55	3.73	3.92	4.05	4.15	4.22
s dakota	.	.	.	.	.	.	.	.	.	.	.	.	.	.
tennesse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.24	0.24
texas	.	.	.	.	.	.	.	.	.	.	.	.	.	.
utah	5.05	4.98	4.90	4.71	4.63	4.81	5.04	3.98	4.04	4.17	4.18	4.20	4.37	4.53
vermont	8.72	8.94	8.47	9.02	9.26	9.11	9.10	4.35	4.44	4.04	4.34	4.51	4.37	4.30
virginia	5.50	5.50	5.52	5.58	5.63	5.67	5.69	3.19	3.29	3.41	3.54	3.65	3.71	3.76
washingt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
w virgin	4.50	4.76	4.96	5.23	5.48	5.66	8.04	2.42	2.52	2.65	2.81	2.94	3.03	3.70
wisconsi	10.59	8.90	7.60	8.95	8.94	8.93	9.90	6.07	5.55	4.75	5.02	5.02	5.00	5.81
wyoming	.	.	.	.	.	.	.	.	.	.	.	.	.	.
federal	34.89	35.76	36.82	39.23	40.26	37.95	35.02	17.07	17.43	17.22	18.51	19.26	17.85	16.20
mean	5.64	5.65	5.63	5.54	5.46	5.61	5.98	3.32	3.40	3.45	3.47	3.47	3.59	3.90
std dev	3.56	3.52	3.51	3.32	3.21	3.17	3.11	1.76	1.77	1.81	1.79	1.79	1.79	1.80

Table 2.2b

State Personal Income Tax Rates at 20000 (1979 dollars) AGI

	Marginal Rate							Average Rate						
state	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	3.80	3.76	3.81	3.75	3.69	3.55	3.67	2.49	2.58	2.70	2.78	2.83	2.76	2.86
alaska	4.97	5.17	.	.	.	.	.	3.28	2.48	.	.	.	.	.
arizona	4.97	5.14	4.82	4.56	4.26	4.26	4.54	2.88	3.00	2.71	2.33	2.11	2.09	2.24
arkansas	5.56	5.79	5.96	6.20	6.28	6.40	6.49	2.72	2.88	3.08	3.31	3.48	3.61	3.68
californ	6.84	6.94	7.05	6.82	6.81	6.57	6.84	2.55	2.64	2.72	2.35	2.39	2.29	2.47
colorada	4.77	4.73	4.13	4.05	3.72	4.55	4.84	2.41	2.43	2.11	2.20	2.03	2.48	2.63
connecti	0.38	0.00	0.01	0.01	0.00	0.00	0.00	0.08	0.08	0.09	0.09	0.10	0.10	0.10
delaware	7.23	7.48	7.93	8.01	8.15	8.16	8.22	3.49	3.66	3.94	4.07	4.28	4.44	4.54
district	9.17	7.69	7.91	8.45	8.61	8.67	8.81	3.56	3.80	4.13	4.40	4.62	4.78	4.88
florida	.	.	.	.	.	.	.	.	.	.	.	.	.	.
georgia	5.81	5.94	6.01	6.14	6.11	6.04	6.04	2.48	2.64	2.85	3.08	3.24	3.41	3.40
hawaii	8.31	8.24	8.72	8.59	8.42	8.40	8.47	4.49	4.69	4.91	4.90	5.11	4.98	5.30
idaho	7.43	7.51	7.55	7.68	7.64	7.55	7.55	3.38	3.58	3.79	3.80	4.01	4.16	4.25
illinois	2.50	2.50	2.50	2.54	2.53	2.50	3.00	2.11	2.15	2.18	2.22	2.24	2.26	2.67
indiana	2.00	2.00	1.70	1.93	1.92	1.90	3.00	1.72	1.74	1.50	1.63	1.65	1.66	2.64
iowa	4.67	4.79	4.72	4.85	4.89	5.07	5.35	2.48	2.60	2.56	2.69	2.81	2.98	3.12
kansas	3.59	3.68	3.95	4.02	4.04	4.30	4.64	1.90	1.91	2.06	2.02	2.12	2.29	2.44
kentucky	4.10	4.17	4.31	4.28	4.24	4.33	4.47	2.31	2.42	2.57	2.69	2.77	2.91	3.03
louisian	2.48	2.50	2.61	2.65	2.54	2.60	2.59	0.78	0.86	1.05	1.15	0.58	0.67	0.95
maine	5.54	5.49	6.31	7.22	7.61	7.75	7.84	1.88	1.84	2.17	2.50	2.78	3.00	3.14
maryland	5.00	5.00	4.81	4.96	4.98	4.96	4.97	3.17	3.22	3.15	3.24	3.31	3.36	3.40
massachu	5.18	5.18	5.05	5.21	5.08	5.01	5.01	4.54	4.62	4.69	4.70	4.42	4.48	4.42
michigan	4.60	4.60	4.60	4.68	4.65	5.10	6.35	3.43	3.51	3.60	3.69	3.76	4.23	5.30
minnesot	11.12	10.67	10.77	10.14	9.77	10.83	11.46	6.21	6.41	5.87	6.03	5.92	6.62	7.07
mississi	3.30	3.38	3.50	3.68	3.60	3.63	4.01	1.12	1.25	1.40	1.56	1.39	1.49	1.62
missouri	3.19	3.30	3.48	3.63	3.64	3.82	4.00	1.50	1.59	1.74	1.87	1.95	2.11	2.23
montana	5.29	5.40	5.54	5.63	5.22	5.56	5.86	3.10	3.23	3.03	3.01	3.05	3.08	3.18
nebraska	3.95	4.09	4.43	4.11	4.19	4.63	4.69	1.59	1.65	1.88	1.58	1.69	1.95	2.07
nevada	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new hamp	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.38	0.39	0.39	0.40	0.40	0.40
new jers	2.02	2.02	2.18	2.28	2.44	2.47	2.50	1.33	1.38	1.43	1.45	1.52	1.57	1.64
new mexi	3.13	3.39	3.54	4.03	2.81	4.16	5.83	0.25	0.39	0.46	0.70	0.38	0.87	1.44
new york	8.55	9.13	9.81	10.70	10.70	10.86	10.85	3.73	3.91	4.19	4.55	4.87	4.89	5.05
n caroli	6.16	6.29	6.46	6.73	6.76	6.78	6.80	3.53	3.68	3.85	3.96	4.08	4.20	4.27
n dakota	4.35	4.80	2.57	2.67	2.76	3.61	3.78	1.72	1.88	1.19	1.26	0.84	1.54	2.05
ohio	2.20	2.31	2.56	2.72	2.81	3.59	5.30	0.96	1.03	1.13	1.27	1.37	1.81	2.54
oklahoma	3.47	3.86	4.47	4.98	5.39	5.61	6.06	1.17	1.31	1.54	1.78	1.99	2.06	2.29
oregon	5.98	6.06	6.12	6.18	6.27	7.46	7.71	1.20	1.35	1.26	1.44	1.57	2.18	2.64
pennsylv	2.00	2.20	2.20	2.20	2.20	2.20	2.45	1.96	2.16	2.17	2.16	2.17	2.16	2.41
rhode is	4.69	4.86	4.68	5.21	5.37	5.64	6.27	2.11	2.16	2.14	2.32	2.47	2.63	2.95
s caroli	5.42	5.63	5.90	6.20	6.35	6.37	6.41	2.51	2.65	2.85	3.07	3.24	3.37	3.45
s dakota	.	.	.	.	.	.	.	.	.	.	.	.	.	.
tennesse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.67	0.67	0.67	0.67	0.67	0.67
texas	.	.	.	.	.	.	.	.	.	.	.	.	.	.
utah	5.18	5.11	5.19	5.17	5.10	5.22	5.44	2.81	2.94	3.12	3.24	3.34	3.51	3.64
vermont	6.17	6.40	5.66	6.31	6.42	6.18	6.09	3.03	3.08	2.79	2.99	3.12	3.04	3.01
virginia	4.72	4.81	4.99	5.29	5.44	5.51	5.54	2.18	2.29	2.43	2.59	2.75	2.85	2.91
washingt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
w virgin	3.56	3.66	3.87	4.13	4.32	4.45	6.00	1.96	2.03	2.12	2.24	2.33	2.41	2.69
wisconsi	8.96	7.87	6.52	7.73	7.75	7.71	8.69	4.44	4.35	3.67	3.10	3.13	3.14	3.96
wyoming	.	.	.	.	.	.	.	.	.	.	.	.	.	.
federal	24.70	25.58	24.62	27.43	27.90	25.75	23.44	11.97	12.17	11.98	12.85	13.43	12.52	11.42
mean	4.65	4.72	4.80	4.96	4.95	5.08	5.46	2.41	2.50	2.55	2.59	2.65	2.76	3.03
std dev	2.57	2.59	2.69	2.81	2.81	2.83	2.80	1.22	1.24	1.22	1.26	1.32	1.35	1.40

Table 2.2c

State Personal Income Tax Rates at 10000 (1979 dollars) AGI

	Marginal Rate							Average Rate						
state	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	3.34	3.52	3.65	3.77	3.86	3.72	3.78	1.65	1.77	1.96	2.11	2.22	2.29	2.38
alaska	4.13	3.45	.	.	.	.	.	2.42	1.11	.	.	.	.	.
arizona	4.42	4.57	3.99	3.72	3.26	3.25	3.43	2.25	2.39	2.05	1.09	0.77	0.70	0.83
arkansas	3.32	3.49	3.76	4.15	4.39	4.51	4.55	1.38	1.50	1.65	1.84	1.99	2.11	2.19
californ	4.09	4.16	4.30	3.97	3.99	3.88	4.12	0.93	1.02	1.10	0.56	0.62	0.58	0.72
colorada	3.80	3.75	3.25	2.97	2.77	3.44	3.66	1.65	1.69	1.46	1.71	1.57	1.89	1.99
connecti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02
delaware	5.32	5.57	5.92	6.22	6.60	6.93	6.99	2.37	2.55	2.73	2.89	3.11	3.29	3.42
district	5.68	5.88	6.43	6.92	7.21	7.30	7.41	2.01	2.15	2.36	2.64	2.82	3.02	3.13
florida	.	.	.	.	.	.	.	.	.	.	.	.	.	.
georgia	3.61	3.88	4.07	4.30	4.61	5.32	4.97	1.28	1.42	1.60	1.81	1.97	2.22	2.08
hawaii	6.92	7.13	7.49	7.69	7.99	7.90	7.90	3.19	3.40	3.68	3.63	3.43	3.49	4.02
idaho	5.69	6.05	6.22	6.21	6.32	6.55	6.62	1.66	1.93	2.17	2.23	2.50	2.69	2.82
illinois	2.50	2.50	2.50	2.50	2.50	2.53	3.03	1.86	1.90	1.96	2.01	2.05	2.08	2.49
indiana	2.00	2.00	1.70	1.90	1.90	1.92	3.03	1.55	1.58	1.37	1.34	1.36	1.39	2.24
iowa	3.46	3.55	3.86	4.17	4.29	4.61	4.77	1.77	1.89	1.85	1.99	2.12	2.26	2.38
kansas	2.77	2.88	3.19	3.12	3.25	3.66	3.77	1.41	1.41	1.56	1.50	1.61	1.74	1.85
kentucky	3.63	3.78	3.87	4.03	4.18	4.38	4.49	1.74	1.87	2.07	2.22	2.34	2.49	2.60
louisian	1.39	1.48	1.75	1.91	1.24	1.26	1.47	0.15	0.24	0.44	0.56	0.12	0.18	0.37
maine	3.29	3.16	3.66	4.28	4.49	4.72	4.82	0.88	0.87	1.11	1.34	1.53	1.69	1.80
maryland	4.71	4.73	4.38	4.51	4.59	4.73	4.76	2.60	2.70	2.58	2.72	2.82	2.91	2.96
massachu	5.06	5.05	5.05	5.05	5.02	5.08	5.06	3.22	3.35	3.51	3.59	2.69	2.83	2.77
michigan	4.74	4.74	4.74	4.74	4.74	5.30	6.54	2.65	2.76	2.90	3.05	3.15	3.59	4.57
minnesot	8.23	9.24	9.58	11.32	13.66	14.54	15.66	1.94	1.36	1.22	1.52	1.86	3.00	3.22
mississi	1.26	1.53	1.97	2.36	1.98	2.12	2.26	0.29	0.35	0.44	0.58	0.43	0.52	0.57
missouri	2.25	2.42	2.61	2.85	3.04	3.37	3.58	0.78	0.87	1.03	1.16	1.25	1.38	1.49
montana	4.69	4.84	4.79	4.76	4.56	4.92	5.04	2.70	2.82	2.55	2.45	2.60	2.48	2.53
nebraska	3.12	3.05	3.73	3.20	3.07	3.41	3.48	0.63	0.71	0.83	0.67	0.82	1.04	1.25
nevada	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new hamp	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.05
new jers	1.92	2.01	2.01	2.01	2.01	2.01	2.01	0.69	0.76	0.87	0.94	1.03	1.08	1.14
new mexi	1.41	1.65	1.70	2.01	1.65	2.44	3.33	-0.70	-0.56	-0.48	-0.28	-0.41	-0.10	0.21
new york	4.55	4.63	4.87	5.14	5.39	5.75	6.03	2.01	2.10	2.24	2.40	2.57	2.28	2.35
n caroli	5.01	5.13	5.40	5.63	5.75	6.00	6.06	2.64	2.78	2.96	3.05	3.18	3.32	3.41
n dakota	1.93	2.15	1.60	1.65	1.31	2.46	3.07	1.04	1.10	0.81	0.85	0.12	0.57	1.38
ohio	0.93	1.00	1.09	1.39	1.61	2.18	3.17	0.48	0.50	0.55	0.60	0.65	0.88	1.02
oklahoma	1.96	2.17	2.46	2.76	3.05	3.24	3.46	0.72	0.80	0.93	1.06	1.18	1.20	1.31
oregon	2.18	2.48	2.41	2.96	3.49	5.14	5.89	0.19	0.23	0.21	0.27	0.33	0.70	1.02
pennsylv	2.00	2.20	2.20	2.20	2.20	2.20	2.45	1.98	2.19	2.19	2.19	2.20	2.19	2.44
rhode is	3.71	3.62	3.94	4.05	3.94	4.14	4.65	1.36	1.41	1.34	1.56	1.72	1.86	2.14
s caroli	3.81	4.08	4.41	4.82	5.16	5.44	5.53	1.86	1.98	2.15	2.34	2.51	2.64	2.74
s dakota	.	.	.	.	.	.	.	.	.	.	.	.	.	.
tennesse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33	0.33	0.33	0.34	0.34	0.34
texas	.	.	.	.	.	.	.	.	.	.	.	.	.	.
utah	4.76	4.73	4.70	4.74	4.96	5.39	5.65	2.39	2.54	2.75	2.90	3.01	3.26	3.38
vermont	6.32	4.77	4.79	4.90	4.71	4.54	4.52	1.64	1.88	1.64	1.91	2.08	2.06	2.11
virginia	3.59	3.89	4.07	4.19	3.94	4.24	4.37	1.33	1.46	1.64	1.84	2.16	2.25	2.31
washingt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
w virgin	2.63	2.71	2.91	3.12	3.31	3.53	4.18	1.64	1.69	1.76	1.85	1.93	2.00	2.09
wisconsi	5.88	5.71	4.85	5.23	5.19	5.28	6.14	2.88	3.05	2.64	0.69	0.70	0.71	1.61
wyoming	.	.	.	.	.	.	.	.	.	.	.	.	.	.
federal	19.50	19.08	21.57	21.31	20.48	18.93	17.39	7.16	7.42	6.96	8.20	8.95	8.51	8.00
mean	3.29	3.39	3.46	3.58	3.67	3.89	4.23	1.49	1.56	1.62	1.59	1.63	1.71	1.92
std dev	1.69	1.74	1.77	1.90	2.16	2.27	2.38	0.85	0.88	0.88	0.96	0.97	1.01	1.09

Table 2.3

Elasticity of State Personal Income Tax Liability With Respect to I
-1977 Law Applies to all Years-

STATE	1977	1978	1979	1980	1981	1982	1983
alabama	1.32	1.28	1.24	1.19	1.16	1.14	1.12
alaska	1.52	1.53	1.52	1.51	1.52	1.51	1.51
arizona	1.41	1.38	1.34	1.29	1.25	1.22	1.20
arkansas	1.58	1.57	1.54	1.52	1.49	1.48	1.46
californ	2.06	2.01	1.95	1.90	1.84	1.81	1.78
colorada	1.57	1.56	1.48	1.42	1.37	1.35	1.32
connecti	1.19	1.16	1.16	1.18	1.15	1.17	1.14
delaware	1.64	1.63	1.58	1.57	1.55	1.54	1.54
district	1.75	1.66	1.61	1.58	1.56	1.54	1.53
florida	.	.	.	.	.	.	.
georgia	1.70	1.66	1.62	1.55	1.51	1.48	1.46
hawaii	1.54	1.50	1.46	1.45	1.39	1.44	1.36
idaho	1.68	1.63	1.58	1.52	1.48	1.45	1.43
illinois	1.21	1.19	1.17	1.15	1.14	1.13	1.13
indiana	1.17	1.17	1.14	1.13	1.12	1.11	1.11
iowa	1.47	1.61	1.52	1.56	1.34	1.32	1.31
kansas	1.56	1.53	1.49	1.45	1.40	1.37	1.35
kentucky	1.43	1.40	1.35	1.29	1.26	1.24	1.21
louisian	2.23	2.13	2.13	2.05	1.96	1.93	1.91
maine	2.03	1.99	1.94	1.88	1.83	1.80	1.77
maryland	1.33	1.31	1.28	1.25	1.23	1.22	1.21
massachu	1.31	1.25	1.23	1.21	1.19	1.18	1.18
michigan	1.44	1.40	1.35	1.31	1.28	1.25	1.24
minnesot	1.85	1.62	1.63	1.52	1.40	1.40	1.30
mississi	2.00	1.97	1.88	1.80	1.75	1.69	1.66
missouri	1.69	1.65	1.59	1.54	1.49	1.46	1.43
montana	1.42	1.40	1.37	1.34	1.32	1.30	1.29
nebraska	2.01	1.95	1.90	1.86	1.81	1.79	1.79
nevada	.	.	.	.	.	.	.
new hamp	1.49	1.47	1.46	1.40	1.39	1.38	1.37
new jers	1.55	1.53	1.50	1.46	1.44	1.41	1.39
new mexi	3.80	3.39	3.04	2.72	2.57	2.45	2.39
new york	1.69	1.68	1.65	1.61	1.58	1.56	1.54
n caroli	1.47	1.46	1.43	1.40	1.37	1.36	1.35
n dakota	1.78	1.76	1.71	1.64	1.59	1.56	1.53
ohio	1.76	1.72	1.69	1.65	1.62	1.60	1.58
oklahoma	1.98	1.98	1.88	1.83	1.78	1.74	1.70
oregon	2.05	1.99	2.00	1.90	1.85	1.84	1.84
pennsylv	1.09	1.04	1.03	1.06	1.05	1.04	1.03
rhode is	1.73	1.71	1.69	1.69	1.66	1.66	1.67
s caroli	1.73	1.64	1.60	1.56	1.53	1.51	1.49
s dakota	.	.	.	.	.	.	.
tennesse	1.00	1.00	1.00	1.00	1.00	1.00	1.00
texas	.	.	.	.	.	.	.
utah	1.37	1.34	1.29	1.23	1.20	1.17	1.15
vermont	2.06	1.98	1.75	1.66	1.64	1.82	1.64
virginia	1.62	1.60	1.56	1.53	1.49	1.47	1.46
washingt	.	.	.	.	.	.	.
w virgin	1.50	1.52	1.52	1.52	1.51	1.53	1.52
wisconsi	1.92	2.33	1.75	1.67	1.62	1.57	1.55
wyoming	.	.	.	.	.	.	.
federal	1.75	1.71	1.70	1.69	1.67	1.66	1.66
mean	1.61	1.59	1.54	1.50	1.46	1.44	1.42
st. dev.	0.36	0.36	0.32	0.29	0.28	0.27	0.26

Table 2.4a
State Personal Income Tax Rates at 40000 (1979 dollars) AGI
-1977 Law Applies to all Years-

	Marginal Rate							Average Rate						
state	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	3.25	3.21	3.09	2.95	2.82	2.78	2.69	2.81	2.82	2.83	2.83	2.83	2.82	2.81
alaska	5.18	5.39	.	.	.	.	.	3.57	3.69	.	.	.	.	.
arizona	4.77	4.70	4.53	4.33	4.14	4.08	3.95	3.54	3.59	3.63	3.67	3.69	3.69	3.69
arkansas	6.88	7.00	7.00	7.00	7.00	7.00	7.00	4.11	4.26	4.43	4.62	4.75	4.84	4.89
californ	9.73	10.25	10.73	11.05	11.09	11.09	11.10	4.16	4.47	4.86	5.30	5.65	5.88	6.03
colorada	4.78	4.76	4.64	4.50	4.36	4.32	4.22	3.10	3.17	3.25	3.32	3.37	3.40	3.41
connecti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.08	0.09	0.09	0.09	0.09
delaware	8.25	8.42	8.46	8.68	8.99	9.42	9.53	4.66	4.83	5.03	5.25	5.43	5.56	5.67
district	8.76	8.89	9.12	9.57	9.78	9.84	9.95	4.89	5.07	5.29	5.55	5.77	5.92	6.02
florida	.	.	.	.	.	.	.	.	.	.	.	.	.	.
georgia	6.00	6.00	6.00	6.00	6.00	6.00	6.00	3.58	3.68	3.81	3.94	4.04	4.10	4.14
hawaii	8.54	8.72	8.79	8.84	9.03	9.12	9.12	5.42	5.56	5.72	5.90	6.04	6.14	6.21
idaho	7.50	7.50	7.50	7.50	7.50	7.50	7.50	4.68	4.80	4.93	5.08	5.19	5.26	5.30
illinois	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.27	2.28	2.30	2.33	2.34	2.35	2.36
indiana	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.83	1.84	1.85	1.87	1.87	1.88	1.89
iowa	4.47	4.57	4.59	4.55	4.46	4.46	4.36	3.02	3.09	3.16	3.25	3.30	3.34	3.36
kansas	4.43	4.48	4.41	4.40	4.23	4.17	4.04	2.49	2.58	2.68	2.78	2.85	2.89	2.92
kentucky	3.76	3.74	3.63	3.53	3.39	3.33	3.23	2.72	2.76	2.80	2.83	2.85	2.86	2.86
louisian	3.20	3.63	4.00	4.00	4.00	4.00	4.00	1.19	1.29	1.44	1.61	1.74	1.83	1.88
maine	7.93	8.33	8.49	8.67	8.83	9.00	9.00	3.43	3.66	3.95	4.26	4.51	4.68	4.80
maryland	5.00	5.00	5.00	5.00	5.00	5.00	5.00	3.61	3.65	3.70	3.76	3.79	3.82	3.83
massachu	5.37	5.37	5.37	5.37	5.37	5.37	5.37	4.92	4.98	5.04	5.10	5.14	5.17	5.19
michigan	4.60	4.60	4.60	4.60	4.60	4.60	4.60	3.84	3.89	3.95	4.01	4.06	4.09	4.11
minnesot	9.75	9.62	9.26	8.85	8.47	8.34	8.08	7.67	7.73	7.78	7.81	7.80	7.78	7.77
mississi	3.77	3.84	3.87	3.87	3.87	3.84	3.84	1.88	1.97	2.09	2.22	2.31	2.37	2.41
missouri	3.56	3.53	3.47	3.39	3.29	3.26	3.17	2.06	2.13	2.21	2.29	2.34	2.37	2.39
montana	5.43	5.48	5.42	5.43	5.33	5.28	5.22	3.57	3.65	3.75	3.84	3.92	3.96	3.99
nebraska	5.58	5.73	6.12	6.56	6.96	7.10	7.38	2.51	2.66	2.85	3.08	3.27	3.41	3.51
nevada	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new hamp	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
new jers	2.52	2.52	2.52	2.52	2.52	2.52	2.52	1.78	1.83	1.89	1.95	2.00	2.03	2.05
new mexi	4.90	5.03	5.38	5.83	6.25	6.33	6.58	1.58	1.75	1.97	2.22	2.44	2.59	2.70
new york	12.61	12.52	12.36	12.36	12.36	12.36	12.36	6.56	6.85	7.19	7.53	7.78	7.95	8.06
n caroli	6.78	6.82	6.87	6.94	7.00	7.00	7.00	4.39	4.51	4.65	4.79	4.91	4.99	5.04
n dakota	5.44	5.58	5.64	5.64	5.53	5.53	5.39	2.79	2.93	3.10	3.27	3.41	3.49	3.54
ohio	2.85	2.85	2.93	3.09	3.18	3.24	3.32	1.75	1.82	1.91	2.01	2.09	2.15	2.19
oklahoma	5.28	5.38	5.30	5.16	5.08	5.06	4.97	2.36	2.52	2.70	2.88	3.01	3.10	3.15
oregon	8.79	9.31	9.84	9.84	9.84	9.84	9.84	2.97	3.14	3.39	3.67	3.88	4.02	4.11
pennsylv	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.04	2.04	2.04	2.04	2.04	2.04	2.04
rhode is	6.63	6.81	7.27	7.79	8.26	8.44	8.76	3.24	3.40	3.60	3.85	4.07	4.23	4.34
s caroli	6.55	6.67	6.77	6.87	6.94	7.00	7.00	3.41	3.55	3.73	3.92	4.06	4.16	4.23
s dakota	.	.	.	.	.	.	.	.	.	.	.	.	.	.
tennesse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.24	0.24
texas	.	.	.	.	.	.	.	.	.	.	.	.	.	.
utah	5.05	4.97	4.78	4.57	4.38	4.31	4.17	3.98	4.01	4.04	4.05	4.04	4.03	4.02
vermont	8.72	8.96	9.56	10.25	10.88	11.10	11.53	4.35	4.55	4.83	5.15	5.44	5.65	5.79
virginia	5.50	5.50	5.53	5.58	5.63	5.67	5.69	3.19	3.29	3.41	3.54	3.63	3.69	3.74
washingt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
w virgin	4.50	4.77	4.96	5.22	5.49	5.68	5.71	2.42	2.52	2.65	2.81	2.94	3.04	3.11
wisconsi	10.59	10.69	10.87	11.05	11.18	11.25	11.31	6.07	6.28	6.55	6.84	7.06	7.22	7.32
wyoming	.	.	.	.	.	.	.	.	.	.	.	.	.	.
federal	34.89	35.83	38.25	40.99	43.50	44.40	46.13	17.07	17.89	18.97	20.28	21.42	22.26	22.83
mean	5.64	5.72	5.78	5.83	5.84	5.84	5.84	3.32	3.44	3.58	3.73	3.85	3.92	3.97
std dev	3.56	3.63	3.68	3.74	3.76	3.76	3.77	1.76	1.83	1.92	2.02	2.09	2.15	2.18

Table 2.4b
State Personal Income Tax Rates at 20000 (1979 dollars) AGI
-1977 Law Applies to all Years-

	Marginal Rate							Average Rate						
state	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	3.80	3.75	3.68	3.61	3.54	3.47	3.43	2.49	2.55	2.63	2.69	2.74	2.77	2.78
alaska	4.97	5.17	.	.	.	.	.	3.28	3.40	.	.	.	.	.
arizona	4.97	5.12	5.13	5.16	5.08	5.00	4.95	2.88	2.98	3.12	3.26	3.37	3.43	3.47
arkansas	5.56	5.79	5.96	6.10	6.23	6.41	6.51	2.72	2.88	3.08	3.30	3.48	3.60	3.68
californ	6.84	7.17	7.64	8.11	8.58	8.87	9.07	2.55	2.78	3.08	3.43	3.73	3.94	4.09
colorada	4.77	4.86	4.93	5.00	5.05	5.01	5.00	2.41	2.53	2.68	2.84	2.97	3.05	3.11
connecti	0.38	0.01	0.01	0.01	0.00	0.00	0.00	0.08	0.10	0.10	0.10	0.11	0.11	0.11
delaware	7.23	7.50	7.66	7.85	8.06	8.13	8.26	3.49	3.67	3.91	4.17	4.38	4.53	4.62
district	9.17	7.70	7.93	8.33	8.54	8.66	8.84	3.56	3.81	4.14	4.41	4.63	4.79	4.89
florida	.	.	.	.	.	.	.	.	.	.	.	.	.	.
georgia	5.81	5.94	6.01	6.04	6.06	6.04	6.05	2.48	2.65	2.86	3.08	3.25	3.36	3.43
hawaii	8.31	8.28	8.72	8.45	8.39	8.51	8.58	4.49	4.69	4.92	5.18	5.37	5.47	5.55
idaho	7.43	7.51	7.55	7.55	7.57	7.55	7.56	3.38	3.58	3.83	4.08	4.27	4.40	4.48
illinois	2.50	2.50	2.50	2.50	2.51	2.50	2.50	2.11	2.14	2.17	2.21	2.23	2.25	2.26
indiana	2.00	2.00	2.00	2.00	2.01	2.00	2.00	1.72	1.74	1.76	1.78	1.80	1.81	1.82
iowa	4.67	4.78	4.82	4.84	4.82	4.78	4.76	2.48	2.59	2.72	2.86	2.96	3.03	3.08
kansas	3.59	3.76	3.97	4.09	4.20	4.23	4.29	1.90	1.98	2.09	2.22	2.33	2.40	2.45
kentucky	4.10	4.16	4.15	4.11	4.07	3.99	3.96	2.31	2.40	2.50	2.61	2.69	2.73	2.76
louisian	2.48	2.51	2.61	2.61	2.71	2.77	2.85	0.78	0.87	0.97	1.08	1.17	1.23	1.26
maine	5.54	5.93	6.51	7.13	7.51	7.69	7.84	1.88	2.07	2.33	2.66	2.93	3.13	3.26
maryland	5.00	5.00	5.00	5.00	5.01	5.00	5.00	3.17	3.24	3.33	3.42	3.49	3.53	3.56
massachu	5.18	5.23	5.30	5.32	5.33	5.32	5.32	4.54	4.62	4.72	4.82	4.90	4.96	4.99
michigan	4.60	4.60	4.60	4.60	4.61	4.60	4.60	3.43	3.51	3.60	3.70	3.76	3.81	3.84
minnesot	11.12	11.06	10.83	10.59	10.43	10.24	10.14	6.21	6.44	6.71	6.97	7.15	7.26	7.32
mississi	3.30	3.37	3.50	3.62	3.69	3.72	3.75	1.12	1.24	1.39	1.56	1.69	1.77	1.83
missouri	3.19	3.31	3.45	3.56	3.62	3.64	3.63	1.50	1.59	1.70	1.83	1.93	2.00	2.05
montana	5.29	5.38	5.57	5.73	5.76	5.74	5.75	3.10	3.21	3.34	3.49	3.61	3.69	3.74
nebraska	3.95	4.10	4.32	4.57	4.82	5.02	5.15	1.59	1.71	1.86	2.04	2.19	2.29	2.37
nevada	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new hamp	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.38	0.38	0.39	0.39	0.40	0.40
new jers	2.02	2.02	2.18	2.28	2.44	2.47	2.50	1.33	1.37	1.43	1.50	1.56	1.61	1.64
new mexi	3.13	3.39	3.73	4.13	4.67	4.92	5.04	0.25	0.39	0.60	0.84	1.05	1.21	1.32
new york	8.55	9.21	10.02	10.89	11.61	11.99	12.27	3.73	3.99	4.33	4.76	5.14	5.41	5.61
n caroli	6.16	6.29	6.46	6.64	6.74	6.79	6.80	3.53	3.67	3.84	4.04	4.19	4.30	4.37
n dakota	4.35	4.77	5.24	5.58	5.73	5.66	5.66	1.72	1.86	2.06	2.30	2.50	2.64	2.73
ohio	2.20	2.31	2.58	2.67	2.80	2.87	2.89	0.96	1.04	1.14	1.27	1.37	1.44	1.50
oklahoma	3.47	3.84	4.21	4.69	5.06	5.20	5.30	1.17	1.30	1.48	1.70	1.89	2.03	2.13
oregon	5.98	6.06	6.20	6.32	6.49	7.02	7.20	1.20	1.36	1.55	1.74	1.89	1.99	2.08
pennsylv	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.96	1.96	1.96	1.96	1.96	1.96	1.96
rhode is	4.69	4.87	5.13	5.43	5.72	5.96	6.11	2.11	2.24	2.40	2.59	2.75	2.87	2.96
s caroli	5.42	5.63	5.90	6.10	6.30	6.37	6.42	2.51	2.66	2.85	3.08	3.25	3.37	3.46
s dakota	.	.	.	.	.	.	.	.	.	.	.	.	.	.
tennesse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.67	0.67	0.67	0.67	0.67	0.67
texas	.	.	.	.	.	.	.	.	.	.	.	.	.	.
utah	5.18	5.12	5.04	4.95	4.89	4.78	4.73	2.81	2.91	3.03	3.15	3.23	3.28	3.31
vermont	6.17	6.41	6.75	7.14	7.53	7.85	8.04	3.03	3.18	3.38	3.61	3.81	3.96	4.06
virginia	4.72	4.82	4.99	5.21	5.41	5.49	5.54	2.18	2.30	2.43	2.60	2.73	2.82	2.89
washingt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
w virgin	3.56	3.67	3.88	4.07	4.31	4.46	4.54	1.96	2.03	2.13	2.24	2.34	2.41	2.47
wisconsi	8.96	9.26	9.64	10.04	10.33	10.48	10.57	4.44	4.67	4.97	5.31	5.59	5.78	5.91
wyoming	.	.	.	.	.	.	.	.	.	.	.	.	.	.
federal	24.70	25.64	27.00	28.56	30.12	31.39	32.16	11.97	12.57	13.37	14.30	15.10	15.69	16.11
mean	4.65	4.79	5.00	5.19	5.36	5.45	5.52	2.41	2.53	2.68	2.85	3.00	3.10	3.17
std dev	2.57	2.71	2.87	3.07	3.24	3.34	3.41	1.22	1.27	1.34	1.43	1.50	1.56	1.60

Table 2.4c
State Personal Income Tax Rates at 10000 (1979 dollars) AGI
-1977 Law Applies to all Years-

	Marginal Rate							Average Rate						
state	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	3.34	3.50	3.67	3.77	3.81	3.80	3.80	1.65	1.75	1.88	2.03	2.15	2.24	2.29
alaska	4.13	4.33	.	.	.	.	.	2.42	2.54	.	.	.	.	.
arizona	4.42	4.58	4.72	4.79	4.83	4.84	4.86	2.25	2.38	2.54	2.73	2.87	2.97	3.03
arkansas	3.32	3.49	3.76	4.16	4.41	4.46	4.52	1.38	1.50	1.65	1.84	2.00	2.12	2.20
californ	4.09	4.35	4.94	5.52	5.98	6.33	6.63	0.93	1.12	1.38	1.69	1.96	2.16	2.30
colorada	3.80	3.94	4.30	4.68	4.72	4.77	4.90	1.65	1.78	1.94	2.14	2.32	2.43	2.51
connecti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.03
delaware	5.32	5.58	5.92	6.36	6.64	6.79	6.85	2.37	2.55	2.78	3.05	3.28	3.44	3.55
district	5.68	5.89	6.44	6.94	7.26	7.22	7.36	2.01	2.19	2.44	2.75	2.99	3.19	3.31
florida	.	.	.	.	.	.	.	.	.	.	.	.	.	.
georgia	3.61	3.89	4.07	4.31	4.64	4.83	4.96	1.28	1.42	1.60	1.82	1.99	2.12	2.21
hawaii	6.92	7.13	7.50	7.89	8.17	8.31	8.40	3.19	3.41	3.69	4.01	4.27	4.46	4.59
idaho	5.69	6.05	6.25	6.41	6.54	6.62	6.72	1.66	1.90	2.21	2.55	2.82	3.00	3.12
illinois	2.50	2.50	2.50	2.50	2.50	2.50	2.50	1.86	1.90	1.95	2.01	2.05	2.07	2.09
indiana	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.55	1.58	1.62	1.65	1.68	1.69	1.71
iowa	3.46	3.54	3.76	4.25	4.42	4.61	4.59	1.77	1.88	2.00	2.15	2.29	2.38	2.46
kansas	2.77	3.00	3.23	3.32	3.40	3.53	3.45	1.41	1.48	1.59	1.73	1.84	1.90	1.96
kentucky	3.63	3.78	3.88	3.98	4.10	4.13	4.12	1.74	1.85	2.00	2.16	2.28	2.36	2.42
louisian	1.39	1.48	1.68	1.80	1.93	2.11	2.20	0.15	0.23	0.32	0.44	0.54	0.60	0.65
maine	3.29	3.54	3.85	4.32	4.55	4.71	4.87	0.88	1.03	1.22	1.45	1.65	1.79	1.90
maryland	4.71	4.74	4.80	4.88	4.94	4.96	4.97	2.60	2.72	2.87	3.02	3.14	3.22	3.27
massachu	5.06	5.06	5.06	5.06	5.06	5.06	5.06	3.22	3.35	3.52	3.68	3.80	3.89	3.94
michigan	4.74	4.74	4.74	4.74	4.62	4.60	4.60	2.65	2.79	2.96	3.14	3.27	3.35	3.39
minnesot	8.23	9.09	11.11	10.42	9.80	12.16	11.19	1.94	2.34	2.90	3.68	4.20	4.48	4.87
mississi	1.26	1.53	1.97	2.36	2.80	3.00	3.13	0.29	0.35	0.44	0.58	0.70	0.82	0.89
missouri	2.25	2.42	2.58	2.80	2.99	3.12	3.21	0.78	0.87	0.98	1.12	1.24	1.32	1.38
montana	4.69	4.84	5.00	5.35	5.47	5.51	5.55	2.70	2.82	2.97	3.14	3.28	3.39	3.46
nebraska	3.12	3.03	3.18	3.36	3.45	3.54	3.62	0.63	0.79	0.97	1.16	1.32	1.42	1.50
nevada	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new hamp	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.05
new jers	1.92	2.01	2.01	2.01	2.01	2.01	2.01	0.69	0.76	0.87	0.98	1.06	1.11	1.14
new mexi	1.41	1.63	1.86	2.19	2.47	2.65	2.77	-0.70	-0.57	-0.39	-0.19	-0.02	0.11	0.20
new york	4.55	4.68	5.03	5.27	5.56	5.91	6.13	2.01	2.16	2.35	2.57	2.75	2.88	2.98
n caroli	5.01	5.13	5.40	5.67	5.85	5.97	6.07	2.64	2.78	2.96	3.17	3.35	3.47	3.55
n dakota	1.93	2.14	2.47	3.04	3.46	3.72	3.87	1.04	1.09	1.17	1.28	1.40	1.49	1.57
ohio	0.93	1.00	1.09	1.34	1.60	1.72	1.79	0.48	0.50	0.55	0.60	0.65	0.70	0.73
oklahoma	1.96	2.17	2.39	2.67	2.95	3.05	3.19	0.72	0.79	0.90	1.03	1.14	1.23	1.30
oregon	2.18	2.79	3.32	4.06	4.60	5.00	5.24	0.19	0.29	0.45	0.65	0.84	0.97	1.08
pennsylv	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.98	1.98	1.98	1.98	1.98	1.98	1.98
rhode is	3.71	3.60	3.77	3.98	4.10	4.20	4.30	1.36	1.51	1.67	1.85	2.00	2.11	2.18
s caroli	3.81	4.11	4.49	4.92	5.21	5.38	5.51	1.86	1.97	2.13	2.33	2.51	2.65	2.74
s dakota	.	.	.	.	.	.	.	.	.	.	.	.	.	.
tennesse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33	0.33	0.33	0.33	0.33	0.33
texas	.	.	.	.	.	.	.	.	.	.	.	.	.	.
utah	4.76	4.72	4.61	4.61	4.86	5.04	5.16	2.39	2.52	2.67	2.82	2.93	3.01	3.06
vermont	6.32	4.74	4.97	5.24	5.39	5.53	5.66	1.64	2.01	2.22	2.46	2.66	2.79	2.89
virginia	3.59	3.90	4.08	4.19	4.31	4.42	4.53	1.33	1.46	1.64	1.85	2.00	2.12	2.19
washingt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
w virgin	2.63	2.71	2.91	3.12	3.33	3.50	3.59	1.64	1.69	1.76	1.86	1.94	2.00	2.05
wisconsi	5.88	6.08	6.27	6.71	7.33	7.77	8.12	2.88	3.06	3.28	3.53	3.75	3.92	4.04
wyoming	.	.	.	.	.	.	.	.	.	.	.	.	.	.
federal	19.50	18.94	19.86	20.96	21.56	22.12	22.63	7.16	7.95	8.79	9.74	10.53	11.07	11.45
mean	3.29	3.42	3.65	3.85	4.01	4.19	4.27	1.49	1.60	1.74	1.91	2.04	2.14	2.21
std dev	1.69	1.77	1.98	2.01	2.04	2.27	2.27	0.85	0.88	0.92	0.97	1.02	1.05	1.09

Table 3.2

IRS State Sales Tax Tables: Regression Parameters
Deviations from Means, Real 1979 Dollars

	1977			1978			1979			1980			1981			1982			1983		
	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c
alabama	5.47	.65	.122	5.53	.63	.090	5.53	.63	.090	5.53	.63	.090	5.53	.63	.090	5.53	.63	.090	5.51	.63	.093
alaska	.	.	.																		
arizona	5.56	.62	.118	5.63	.62	.090	5.63	.62	.091	5.51	.63	.072	5.42	.66	.060	5.43	.66	.060	5.53	.66	.061
arkansas	5.26	.64	.123	5.33	.62	.089	5.32	.62	.089	5.32	.62	.089	5.37	.62	.088	5.32	.62	.089	5.32	.62	.089
californ	5.67	.72	.058	5.73	.66	.061	5.73	.66	.061	5.73	.66	.061	5.73	.66	.061	5.73	.66	.061	5.73	.66	.061
colorada	5.23	.64	.119	5.28	.62	.089	5.28	.62	.089	4.99	.69	.052	4.95	.71	.056	4.95	.71	.056	4.93	.69	.064
connecti	5.75	.78	.043	5.72	.73	.064	5.71	.73	.054	5.76	.72	.043	5.82	.71	.055	5.82	.71	.055	5.82	.71	.055
delaware	.	.	.																		
district	5.29	.66	.120	5.36	.64	.091	5.36	.64	.091	5.46	.65	.086	5.59	.65	.080	5.59	.65	.080	5.59	.65	.080
florida	5.32	.73	.068	5.26	.70	.057	5.26	.70	.057	5.26	.70	.057	5.26	.70	.057	5.42	.71	.057	5.57	.70	.061
georgia	5.32	.62	.117	5.37	.60	.095	5.37	.60	.095	5.37	.60	.095	5.37	.60	.095	5.37	.60	.095	5.37	.60	.095
hawaii	5.78	.61	.084	5.86	.57	.059	5.86	.57	.059	5.86	.57	.059	5.86	.57	.059	5.86	.57	.059	5.86	.57	.059
idaho	5.21	.65	.119	5.23	.63	.092	5.23	.63	.092	5.23	.63	.092	5.23	.63	.092	5.23	.62	.094	5.54	.62	.092
illinois	5.64	.63	.129	5.74	.61	.097	5.74	.61	.097	5.69	.62	.089	5.65	.63	.083	5.65	.63	.083	5.65	.63	.083
indiana	5.37	.71	.077	5.45	.65	.065	5.45	.65	.065	5.45	.65	.065	5.45	.65	.065	5.45	.65	.065	5.68	.64	.066
iowa	5.17	.77	.094	5.17	.67	.053	5.17	.67	.053	5.17	.67	.053	5.17	.67	.053	5.17	.67	.053	5.43	.68	.053
kansas	5.34	.64	.122	5.39	.63	.090	5.29	.63	.094	5.26	.65	.095	5.26	.65	.095	5.26	.65	.095	5.26	.65	.095
kentucky	5.59	.72	.059	5.60	.66	.057	5.55	.68	.054	5.51	.68	.051	5.51	.68	.051	5.50	.68	.054	5.48	.68	.057
louisian	5.08	.78	.058	5.04	.70	.051	5.04	.70	.051	5.04	.70	.051	5.04	.70	.051	5.04	.70	.051	5.04	.70	.051
maine	5.54	.75	.062	5.47	.70	.056	5.45	.70	.057	5.45	.70	.057	5.45	.70	.057	5.45	.70	.057	5.45	.70	.057
maryland	5.45	.73	.062	5.51	.68	.059	5.46	.70	.056	5.40	.72	.053	5.38	.72	.054	5.38	.72	.054	5.38	.72	.054
massachu	4.84	.75	.138	5.01	.63	.139	5.16	.72	.092	5.13	.72	.061	5.13	.72	.061	5.13	.72	.061	5.13	.72	.061
michigan	5.34	.74	.060	5.41	.66	.057	5.41	.66	.057	5.41	.66	.057	5.41	.66	.057	5.41	.66	.057	5.41	.66	.057
minnesot	5.10	.73	.045	5.11	.71	.071	5.05	.72	.066	5.03	.72	.045	5.12	.72	.045	5.32	.69	.056	5.49	.68	.063
mississi	5.86	.63	.116	5.93	.61	.091	5.90	.62	.088	5.87	.62	.091	5.87	.62	.091	5.87	.62	.091	5.87	.62	.091
missouri	5.27	.64	.124	5.37	.61	.089	5.37	.61	.089	5.30	.63	.082	5.30	.63	.082	5.30	.63	.082	5.57	.63	.082
montana	.	.	.																		
nebraska	5.30	.63	.126	5.33	.61	.090	5.33	.61	.090	5.33	.61	.090	5.32	.61	.093	5.43	.60	.093	5.48	.62	.084
nevada	5.32	.62	.119	5.35	.63	.091	5.22	.65	.072	5.05	.70	.053	5.39	.70	.055	5.54	.70	.054	5.54	.70	.054
new hamp	.	.	.																		
new jers	5.29	.78	.031	5.32	.65	.039	5.30	.72	.056	5.28	.72	.062	5.26	.72	.067	5.26	.72	.067	5.41	.72	.060
new mexi	5.66	.64	.113	5.71	.61	.089	5.69	.61	.089	5.69	.61	.089	5.65	.61	.089	5.62	.61	.090	5.64	.62	.088
new york	5.44	.78	.073	5.47	.67	.059	5.39	.70	.053	5.39	.70	.053	5.39	.70	.053	5.39	.70	.053	5.39	.70	.053
n caroli	5.43	.63	.121	5.48	.62	.088	5.48	.62	.088	5.48	.62	.088	5.48	.62	.088	5.48	.62	.088	5.48	.62	.088
n dakota	5.00	.77	.057	5.01	.69	.050	5.01	.69	.050	5.01	.69	.050	5.02	.69	.058	5.01	.69	.059	5.18	.69	.067
ohio	5.20	.80	.059	5.19	.71	.050	5.19	.71	.050	5.20	.71	.058	5.32	.70	.052	5.48	.70	.052	5.47	.70	.053
oklahoma	4.86	.64	.116	4.91	.62	.084	4.91	.62	.084	4.91	.62	.084	4.87	.64	.082	4.87	.63	.080	4.87	.63	.080
oregon	.	.	.																		
pennsylv	5.28	.82	.028	5.36	.74	.045	5.36	.74	.045	5.36	.74	.045	5.36	.74	.045	5.36	.74	.045	5.37	.73	.051
rhode is	5.54	.76	.046	5.48	.70	.048	5.48	.70	.048	5.48	.70	.048	5.48	.70	.048	5.48	.70	.048	5.48	.70	.048
s caroli	5.56	.62	.118	5.62	.61	.085	5.62	.61	.085	5.59	.61	.082	5.58	.62	.080	5.58	.62	.080	5.58	.62	.080
s dakota	5.59	.65	.118	5.65	.62	.084	5.65	.63	.086	5.75	.64	.082	5.70	.64	.068	5.65	.63	.081	5.65	.63	.087
tennesse	5.61	.63	.118	5.70	.62	.083	5.70	.62	.083	5.70	.62	.083	5.70	.62	.083	5.70	.62	.083	5.70	.62	.083
texas	5.28	.73	.064	5.25	.68	.065	5.19	.70	.063	5.19	.70	.063	5.19	.70	.063	5.19	.70	.063	5.19	.70	.063
utah	5.71	.65	.111	5.72	.63	.082	5.72	.63	.082	5.72	.63	.082	5.72	.63	.082	5.72	.63	.082	5.76	.63	.083
vermont	4.67	.72	.119	4.68	.69	.085	4.68	.69	.085	4.68	.69	.085	4.68	.69	.085	4.77	.73	.074	4.86	.71	.078
virginia	5.43	.64	.123	5.45	.62	.093	5.45	.62	.093	5.45	.62	.093	5.45	.62	.093	5.47	.62	.092	5.50	.60	.085
washingt	5.76	.66	.117	5.64	.68	.072	5.51	.71	.058	5.51	.72	.052	5.52	.72	.052	5.85	.66	.080	5.94	.68	.074
w virgin	5.27	.66	.127	5.29	.65	.082	5.25	.65	.078	5.17	.68	.065	5.32	.71	.051	5.47	.73	.047	5.57	.71	.051
wisconsi	5.41	.74	.065	5.44	.66	.064	5.41	.67	.052	5.34	.70	.047	5.34	.70	.047	5.50	.70	.049	5.57	.70	.048
wyoming	5.32	.66	.125	5.34	.62	.082	5.34	.62	.082	5.34	.62	.082	5.34	.62	.082	5.34	.62	.082	5.34	.62	.082

Table 3.3
Comprehensiveness of State Sales Taxes.

	1977	1978	1979	1980	1981	1982	1983
alabama	.309	.326	.326	.326	.326	.326	.320
alaska	.	.	.	.	.	.	.
arizona	.340	.364	.367	.315	.283	.283	.310
arkansas	.338	.361	.358	.358	.358	.268	.358
californ	.318	.335	.335	.334	.335	.335	.335
colorada	.326	.341	.341	.240	.229	.229	.216
connecti	.221	.210	.207	.215	.216	.216	.216
delaware	.	.	.	.	.	.	.
district	.186	.202	.202	.225	.256	.213	.213
florida	.258	.235	.235	.235	.235	.283	.293
georgia	.362	.375	.375	.375	.375	.375	.375
hawaii	.433	.471	.471	.471	.471	.471	.471
idaho	.320	.319	.319	.319	.319	.320	.439
illinois	.377	.416	.416	.393	.374	.374	.374
indiana	.273	.296	.296	.296	.296	.296	.372
iowa	.313	.296	.296	.296	.296	.296	.388
kansas	.369	.387	.346	.335	.336	.336	.336
kentucky	.271	.272	.254	.242	.242	.239	.234
louisian	.277	.257	.257	.256	.257	.257	.257
maine	.256	.233	.227	.227	.227	.227	.227
maryland	.285	.242	.229	.212	.208	.208	.208
massachu	.102	.127	.157	.149	.149	.149	.149
michigan	.263	.280	.280	.279	.280	.280	.280
minnesot	.193	.196	.182	.175	.196	.237	.226
mississi	.373	.398	.386	.375	.375	.375	.375
missouri	.326	.360	.360	.333	.334	.334	.435
montana	.	.	.	.	.	.	.
nebraska	.352	.362	.362	.361	.357	.395	.376
nevada	.300	.310	.265	.215	.304	.347	.211
new hamp	.	.	.	.	.	.	.
new jers	.187	.189	.187	.182	.177	.177	.206
new mexi	.386	.433	.419	.419	.406	.392	.433
new york	.301	.303	.278	.278	.278	.278	.278
n caroli	.412	.427	.427	.427	.427	.427	.427
n dakota	.249	.246	.246	.246	.248	.246	.291
ohio	.225	.217	.217	.219	.250	.294	.232
oklahoma	.340	.354	.354	.354	.338	.336	.336
oregon	.	.	.	.	.	.	.
pennsylv	.145	.158	.158	.158	.158	.158	.162
rhode is	.245	.185	.185	.185	.185	.185	.185
s caroli	.339	.359	.359	.349	.343	.343	.343
s dakota	.353	.372	.375	.415	.343	.331	.375
tennesse	.323	.416	.346	.346	.346	.346	.346
texas	.245	.232	.217	.217	.217	.217	.217
utah	.406	.407	.407	.407	.407	.407	.426
vermont	.164	.161	.161	.161	.161	.184	.207
virginia	.292	.311	.414	.414	.414	.414	.414
washingt	.368	.320	.272	.278	.279	.401	.301
w virgin	.343	.344	.331	.299	.359	.407	.328
wisconsi	.288	.292	.280	.261	.261	.306	.280
wyoming	.363	.366	.366	.365	.366	.366	.366

Table 4.1

Elasticity of Combined Income and Sales Tax Liability

state	1977	1978	1979	1980	1981	1982	1983
alabama	0.99	0.96	0.95	0.93	0.92	0.92	0.93
alaska	1.52	1.91	.	.	.	.	.
arizona	1.05	1.03	1.05	1.16	1.20	1.22	1.19
arkansas	1.24	1.22	1.22	1.21	1.20	1.20	1.20
californ	1.42	1.38	1.40	1.43	1.43	1.42	1.42
colorada	1.19	1.17	1.13	1.15	1.15	1.20	1.22
connecti	0.79	0.73	0.74	0.73	0.72	0.72	0.76
delaware	1.64	1.62	1.61	1.58	1.56	1.54	1.53
district	1.39	1.33	1.32	1.29	1.27	1.26	1.25
florida	0.72	0.69	0.69	0.69	0.69	0.70	0.69
georgia	1.26	1.23	1.22	1.21	1.18	1.16	1.16
hawaii	1.18	1.14	1.12	1.15	1.15	1.17	1.18
idaho	1.34	1.31	1.29	1.29	1.27	1.25	1.19
illinois	0.89	0.86	0.85	0.86	0.87	0.86	0.89
indiana	0.91	0.87	0.84	0.88	0.88	0.87	0.90
iowa	1.17	1.27	1.20	1.20	1.13	1.20	1.13
kansas	1.12	1.11	1.13	1.14	1.13	1.15	1.16
kentucky	1.05	1.02	1.02	1.00	1.00	1.00	1.01
louisian	1.30	1.27	1.28	1.28	1.33	1.36	1.35
maine	1.39	1.42	1.42	1.42	1.41	1.40	1.39
maryland	1.08	1.04	1.04	1.05	1.05	1.04	1.04
massachu	1.18	1.11	1.09	1.09	1.13	1.11	1.12
michigan	1.16	1.08	1.09	1.14	1.13	1.12	1.13
minnesot	1.57	1.49	1.63	1.60	1.52	1.45	1.48
mississi	1.03	1.01	1.02	1.03	1.03	1.03	1.08
missouri	1.12	1.09	1.08	1.09	1.09	1.09	1.04
montana	1.42	1.40	1.48	1.51	1.42	1.47	1.49
nebraska	1.34	1.33	1.34	1.35	1.34	1.31	1.28
nevada	0.61	0.62	0.64	0.69	0.70	0.70	0.70
new hamp	1.41	1.40	1.38	1.34	1.33	1.31	1.31
new jers	1.09	1.03	1.05	1.06	1.06	1.05	1.01
new mexi	1.37	1.34	1.36	1.36	1.29	1.38	1.45
new york	1.39	1.37	1.39	1.36	1.32	1.34	1.33
n caroli	1.17	1.16	1.15	1.15	1.14	1.13	1.13
n dakota	1.35	1.34	1.14	1.13	1.25	1.26	1.19
ohio	1.18	1.14	1.14	1.14	1.11	1.17	1.28
oklahoma	1.42	1.43	1.42	1.40	1.41	1.44	1.42
oregon	2.04	2.00	2.04	1.96	1.91	1.79	1.66
pennsylv	0.95	0.89	0.88	0.90	0.89	0.89	0.89
rhode is	1.25	1.26	1.26	1.29	1.28	1.29	1.31
s caroli	1.23	1.18	1.16	1.16	1.17	1.15	1.15
s dakota	0.64	0.61	0.62	0.63	0.63	0.63	0.62
tennesse	0.68	0.66	0.67	0.67	0.67	0.67	0.67
texas	0.72	0.67	0.69	0.69	0.69	0.69	0.69
utah	1.02	1.00	0.99	0.96	0.95	0.95	0.95
vermont	1.75	1.71	1.46	1.50	1.48	1.60	1.42
virginia	1.16	1.15	1.15	1.14	1.12	1.11	1.09
washingt	0.65	0.67	0.70	0.71	0.71	0.65	0.67
w virgin	1.12	1.13	1.16	1.19	1.17	1.16	1.31
wisconsi	1.52	1.80	1.58	1.42	1.42	1.37	1.33
wyoming	0.65	0.61	0.61	0.61	0.61	0.61	0.61
federal	1.75	1.75	1.77	1.76	1.73	1.72	1.72
Mean	1.14	1.11	1.11	1.11	1.10	1.10	1.10
St. Dev.	0.27	0.29	0.28	0.27	0.26	0.26	0.26

TABLE 4.2a

Average and Marginal Tax Rates at 40000 AGI (1979 dollars)(Combined Income And Sales.)

	Marginal Rate							Average Rate						
state	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	3.92	3.74	3.72	3.61	3.49	3.69	3.87	4.93	4.94	5.01	5.00	5.01	4.95	5.03
alaska	5.17	5.33	0.00	0.00	0.00	0.00	0.00	3.47	3.02	0.00	0.00	0.00	0.00	0.00
arizona	5.40	5.21	5.14	4.91	4.63	4.90	5.23	5.32	5.48	5.24	4.52	4.15	4.19	4.59
arkansas	7.50	7.49	7.49	7.49	7.51	7.49	7.49	5.83	5.99	6.16	6.34	6.55	6.56	6.58
californ	10.94	11.10	11.32	10.81	10.83	10.33	10.83	6.66	6.65	6.79	6.25	6.30	6.15	6.40
colorada	5.34	5.10	4.56	4.36	3.95	4.94	5.24	4.76	4.72	4.24	3.95	3.71	4.29	4.44
connecti	1.15	0.97	0.96	0.97	1.02	1.02	1.02	2.95	2.68	2.63	2.68	2.87	2.87	2.87
delaware	8.43	8.43	8.74	8.80	8.80	9.01	9.57	4.87	5.04	5.36	5.41	5.59	5.72	5.81
district	9.22	9.71	9.75	10.30	10.52	10.86	11.02	6.74	6.95	7.20	7.64	8.11	8.26	8.38
florida	0.66	0.57	0.57	0.57	0.57	0.68	0.77	1.79	1.59	1.59	1.59	1.59	1.89	2.17
georgia	6.50	6.48	6.48	6.48	6.48	6.48	6.48	5.26	5.35	5.49	5.62	5.72	5.82	5.82
hawaii	9.39	9.47	9.45	9.68	9.65	9.88	9.88	8.10	8.22	8.38	8.38	8.53	8.46	8.69
idaho	7.99	7.95	7.95	7.95	7.95	7.95	8.11	6.20	6.25	6.38	6.39	6.52	6.60	7.18
illinois	3.23	3.21	3.21	3.21	3.20	3.20	3.70	4.46	4.53	4.54	4.49	4.44	4.45	4.89
indiana	2.67	2.58	2.28	2.48	2.48	2.48	3.73	3.63	3.58	3.32	3.45	3.46	3.47	4.91
iowa	5.48	5.04	5.01	5.06	5.19	5.58	6.08	4.86	4.60	4.55	4.62	4.70	4.94	5.63
kansas	5.13	4.90	5.14	5.00	4.82	5.11	5.40	4.29	4.31	4.35	4.31	4.37	4.59	4.78
kentucky	4.66	4.44	4.42	4.28	4.14	4.36	4.59	5.15	5.00	5.05	5.02	5.05	5.17	5.29
louisian	4.60	4.45	4.45	4.45	4.45	4.45	4.45	2.76	2.65	2.86	3.04	2.49	2.61	2.92
maine	8.86	8.70	9.29	9.89	9.89	9.89	9.89	5.77	5.49	5.85	6.22	6.51	6.70	6.83
maryland	5.74	5.68	5.68	5.68	5.68	5.68	5.68	5.75	5.75	5.62	5.63	5.66	5.69	5.71
massachu	5.84	5.76	5.94	5.90	5.90	5.90	5.90	5.89	5.91	6.25	6.19	5.88	5.91	5.87
michigan	5.28	5.17	5.17	5.17	5.17	5.67	6.92	5.58	5.52	5.57	5.63	5.68	6.14	7.25
minnesot	10.34	9.88	9.80	9.47	9.15	10.12	11.16	9.11	9.14	8.79	8.69	8.64	9.64	10.44
mississi	4.79	4.79	4.79	4.77	4.77	4.77	5.64	4.70	4.86	4.93	5.00	4.88	4.96	5.24
missouri	4.11	3.98	4.02	3.97	3.90	4.18	4.57	3.68	3.78	3.92	3.93	3.97	4.13	4.76
montana	5.57	5.61	5.57	5.38	4.79	5.12	5.77	3.83	3.92	3.83	3.78	3.63	3.74	3.92
nebraska	6.01	6.47	7.30	6.47	6.84	7.45	7.48	4.16	4.23	4.57	4.22	4.36	4.88	5.08
nevada	0.50	0.51	0.48	0.46	0.65	0.75	0.75	1.59	1.61	1.44	1.29	1.83	2.10	2.10
new hamp	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new jers	3.25	3.03	3.14	3.13	3.12	3.12	3.23	3.58	3.34	3.56	3.59	3.62	3.64	3.95
new mexi	5.54	5.94	5.96	6.44	5.34	7.15	9.43	3.95	4.09	4.13	4.41	3.83	4.64	5.71
new york	12.86	12.65	12.64	11.64	10.64	10.64	10.64	8.73	8.65	8.85	8.80	8.58	8.57	8.64
n caroli	7.26	7.41	7.57	7.57	7.57	7.57	7.57	6.32	6.42	6.57	6.66	6.76	6.85	6.90
n dakota	5.99	5.92	3.22	3.22	3.12	3.91	4.22	4.18	4.19	2.90	2.95	2.73	3.41	4.02
ohio	3.56	3.39	3.39	3.74	3.93	4.86	6.79	3.48	3.31	3.38	3.49	3.75	4.63	5.79
oklahoma	5.96	5.69	5.94	6.01	6.07	5.90	5.96	3.60	3.76	4.09	4.27	4.41	4.56	4.66
oregon	9.06	9.06	7.21	9.06	9.06	9.86	9.86	2.21	2.43	2.10	2.33	2.55	3.20	3.48
pennsylv	2.78	2.88	2.88	2.88	2.88	2.88	3.14	3.89	4.04	4.03	4.03	4.04	4.04	4.31
rhode is	7.43	7.83	7.91	8.30	8.87	9.14	9.96	5.60	5.41	5.36	5.66	5.89	6.11	6.56
s caroli	7.14	7.46	7.46	7.58	7.62	7.62	7.62	5.62	5.77	5.95	6.09	6.24	6.34	6.40
s dakota	0.71	0.67	0.68	0.79	0.72	0.69	0.69	2.16	2.13	2.15	2.43	2.25	2.16	2.16
tennesse	0.69	0.70	0.70	0.70	0.70	0.70	0.70	2.33	2.41	2.40	2.40	2.41	2.41	2.41
texas	0.64	0.53	0.52	0.52	0.52	0.52	0.52	1.73	1.54	1.48	1.48	1.49	1.49	1.49
utah	5.87	5.58	5.54	5.38	5.19	5.50	5.84	6.47	6.40	6.53	6.53	6.55	6.73	7.02
vermont	8.96	9.69	9.05	9.52	10.08	9.63	9.40	5.37	5.48	5.06	5.42	5.63	5.62	5.63
virginia	6.09	6.05	6.05	6.18	6.30	6.32	6.28	5.09	5.12	5.24	5.37	5.50	5.61	5.62
washingt	0.87	0.78	0.74	0.75	0.76	0.93	1.06	2.62	2.28	2.06	2.08	2.09	2.77	3.09
w virgin	5.30	5.34	5.60	5.83	6.29	6.49	9.13	4.18	4.20	4.31	4.37	4.82	5.23	6.15
wisconsi	11.36	9.66	8.21	9.07	9.07	9.17	10.27	8.10	7.35	6.43	5.62	5.64	5.93	7.07
wyoming	0.56	0.49	0.49	0.49	0.49	0.49	0.49	1.69	1.56	1.55	1.55	1.56	1.56	1.56
federal	34.44	37.50	37.96	40.00	42.46	38.54	34.61	17.38	18.10	17.90	19.45	20.37	18.93	17.17
mean	5.75	5.66	5.62	5.54	5.46	5.57	5.98	4.89	4.84	4.86	4.81	4.82	4.97	5.32
std dev	3.76	3.74	3.75	3.55	3.42	3.35	3.44	2.03	2.05	2.09	2.02	1.99	1.97	2.02

TABLE 4.2b

Average and Marginal Tax Rates at 20000 AGI (1979 dollars)(Combined Income And Sales.)

state	Marginal Rate							Average Rate						
	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	4.47	4.41	4.44	4.30	4.41	4.23	4.32	4.75	4.92	5.03	5.09	5.15	5.07	5.13
alaska	5.66	5.79	0.00	0.00	0.00	0.00	0.00	3.29	2.64	0.01	0.01	0.01	0.01	0.01
arizona	5.63	5.75	5.54	4.97	4.97	4.99	5.18	5.14	5.43	5.15	4.38	4.00	4.00	4.37
arkansas	5.95	6.54	6.62	6.62	6.87	6.76	6.87	4.25	4.46	4.66	4.88	5.12	5.16	5.22
californ	8.67	8.77	9.09	8.48	8.66	8.41	8.54	5.56	5.62	5.71	5.33	5.37	5.26	5.45
colorada	5.56	5.54	4.96	4.72	4.52	5.37	5.54	4.37	4.44	3.97	3.68	3.46	3.93	4.05
connecti	1.28	1.10	1.41	1.12	1.17	1.17	1.17	3.14	2.90	2.87	2.98	3.16	3.16	3.16
delaware	7.29	7.64	8.15	8.05	8.48	8.35	8.42	3.72	3.90	4.21	4.31	4.50	4.66	4.75
district	8.41	8.64	8.88	9.48	10.15	9.86	9.87	5.73	6.01	6.24	6.70	7.21	7.38	7.49
florida	0.74	0.65	0.65	0.65	0.65	0.78	0.88	1.96	1.78	1.78	1.78	1.78	2.10	2.43
georgia	6.39	6.62	6.62	6.62	6.84	6.62	6.62	4.33	4.53	4.73	4.94	5.09	5.27	5.24
hawaii	9.37	10.50	11.05	9.30	9.59	9.59	9.59	7.45	7.75	7.99	8.07	8.21	8.10	8.39
idaho	8.11	8.09	8.09	8.09	8.37	8.08	8.28	5.26	5.43	5.62	5.64	5.82	5.95	6.62
illinois	3.33	3.34	3.34	3.33	3.41	3.32	3.82	4.52	4.71	4.74	4.67	4.60	4.62	5.02
indiana	2.75	2.69	2.39	2.59	2.66	2.59	3.86	3.70	3.75	3.51	3.60	3.62	3.63	5.08
iowa	5.56	5.31	5.31	5.44	5.77	5.77	6.11	4.37	4.33	4.30	4.41	4.52	4.71	5.36
kansas	4.42	4.65	4.45	4.53	4.82	4.85	4.98	3.86	3.96	3.93	3.86	3.95	4.13	4.28
kentucky	5.18	5.06	5.08	4.97	5.10	5.07	5.17	4.98	4.99	5.02	5.04	5.11	5.21	5.29
louisian	3.67	3.54	3.54	3.53	3.61	3.54	3.54	2.40	2.33	2.53	2.66	2.12	2.22	2.50
maine	6.83	6.50	8.28	8.44	8.96	8.94	8.94	4.72	4.46	4.69	5.05	5.32	5.53	5.66
maryland	5.84	5.79	5.63	5.62	5.95	5.77	5.77	5.45	5.54	5.39	5.38	5.41	5.46	5.49
massachu	5.70	5.65	5.67	5.73	5.81	5.61	5.61	5.17	5.31	5.71	5.70	5.34	5.41	5.37
michigan	5.37	5.28	5.28	5.28	5.44	5.78	7.03	5.39	5.43	5.51	5.59	5.64	6.09	7.13
minnesot	11.48	11.27	10.91	10.44	10.25	11.38	11.91	7.21	7.52	6.92	7.10	7.27	8.15	8.90
mississi	4.44	4.50	4.63	4.66	4.79	4.76	5.24	4.24	4.50	4.59	4.67	4.52	4.62	4.77
missouri	4.16	4.21	4.25	4.32	4.40	4.47	4.81	3.29	3.52	3.66	3.71	3.78	3.93	4.61
montana	5.66	5.57	5.82	5.70	5.44	5.99	6.23	3.29	3.45	3.29	3.29	3.24	3.25	3.35
nebraska	4.68	4.89	5.32	4.94	5.15	5.52	5.72	3.45	3.47	3.73	3.43	3.53	3.98	4.22
nevada	0.58	0.60	0.56	0.53	0.75	0.87	0.87	1.79	1.84	1.65	1.45	2.04	2.35	2.35
new hamp	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new jers	2.82	2.62	2.71	2.89	3.09	3.19	3.31	3.22	3.08	3.21	3.19	3.21	3.26	3.63
new mexi	4.26	4.57	4.71	5.30	4.66	6.07	7.95	3.08	3.30	3.32	3.56	3.21	3.73	4.48
new york	9.42	9.65	10.55	11.41	11.91	11.66	11.87	5.88	5.93	6.09	6.44	6.77	6.82	6.98
n caroli	6.99	7.25	7.25	7.46	7.74	7.56	7.59	5.68	5.84	6.00	6.10	6.21	6.32	6.38
n dakota	5.11	5.58	3.09	3.17	3.51	4.32	4.55	3.38	3.47	2.63	2.70	2.36	3.02	3.80
ohio	3.07	3.06	3.13	3.39	3.73	4.47	6.16	2.84	2.76	2.86	2.99	3.30	4.07	4.81
oklahoma	4.34	4.77	5.34	5.66	6.13	6.41	6.54	2.69	2.89	3.13	3.36	3.53	3.61	3.84
oregon	6.50	6.59	6.27	6.45	6.68	7.23	7.45	1.00	1.20	1.13	1.27	1.39	2.04	2.47
pennsylv	2.86	2.98	2.98	2.98	2.98	2.98	3.23	3.95	4.14	4.14	4.14	4.14	4.13	4.39
rhode is	5.87	5.96	5.83	6.36	6.71	6.79	7.57	4.85	4.56	4.55	4.72	4.86	5.04	5.37
s caroli	6.60	6.70	6.93	7.08	7.41	7.25	7.25	5.11	5.36	5.54	5.69	5.83	5.95	6.03
s dakota	0.80	0.79	0.81	0.93	0.86	0.82	0.81	2.38	2.45	2.47	2.77	2.60	2.47	2.47
tennesse	0.79	0.83	0.83	0.83	0.83	0.83	0.83	2.71	2.88	2.88	2.88	2.88	2.88	2.88
texas	0.72	0.61	0.60	0.60	0.60	0.60	0.60	1.89	1.73	1.66	1.66	1.66	1.66	1.66
utah	6.72	6.58	6.63	6.42	6.59	6.56	6.77	6.09	6.22	6.40	6.51	6.59	6.81	7.07
vermont	6.80	7.12	6.43	7.07	7.40	6.97	7.02	4.32	4.27	3.99	4.21	4.34	4.41	4.49
virginia	5.75	5.73	5.78	6.06	6.37	6.33	6.31	4.48	4.59	4.73	4.89	5.04	5.18	5.25
washingt	0.98	0.91	0.85	0.87	0.87	1.08	1.22	2.87	2.56	2.30	2.32	2.33	3.11	3.45
w virgin	4.51	4.60	4.90	4.93	5.60	5.74	7.31	3.85	3.92	3.99	4.01	4.43	4.85	5.48
wisconsi	10.47	8.88	7.37	8.24	8.73	8.58	9.62	6.66	6.41	5.70	4.70	4.72	5.08	6.12
wyoming	0.63	0.58	0.58	0.58	0.58	0.58	0.58	1.85	1.80	1.80	1.80	1.80	1.80	1.80
federal	25.66	27.06	26.41	29.18	30.63	27.28	25.25	12.36	12.30	12.25	13.17	13.75	12.91	11.78
mean	5.09	5.09	5.16	5.21	5.38	5.42	5.76	4.26	4.30	4.33	4.32	4.38	4.54	4.87
std dev	2.94	2.96	3.09	3.14	3.25	3.18	3.22	1.43	1.50	1.52	1.51	1.56	1.55	1.61

TABLE 4.20

Average and Marginal Tax Rates at 10000 AGI (1979 dollars)(Combined Income And Sales.)

	Marginal Rate							Average Rate						
state	1977	1978	1979	1980	1981	1982	1983	1977	1978	1979	1980	1981	1982	1983
alabama	4.54	4.69	4.86	4.97	4.93	4.61	4.70	4.12	4.51	4.69	4.87	5.01	5.09	5.12
alaska	3.82	3.89	0.00	0.00	0.00	0.00	0.00	2.29	0.77	0.01	0.01	0.01	0.01	0.01
arizona	4.86	5.05	4.52	4.28	3.82	3.90	4.07	4.30	4.66	4.42	3.45	3.07	3.05	3.38
arkansas	4.04	4.43	4.85	5.15	5.28	5.25	5.25	3.22	3.51	3.65	3.83	4.09	4.09	4.16
californ	4.65	4.68	4.76	4.39	4.44	4.22	4.53	3.61	3.82	3.88	3.45	3.51	3.47	3.58
colorada	4.38	4.32	3.35	3.25	3.02	3.61	3.94	3.41	3.54	3.20	2.88	2.72	2.98	3.00
connecti	1.43	1.25	1.25	1.30	1.36	1.36	1.36	3.89	3.68	3.67	3.83	4.03	4.03	4.03
delaware	4.58	4.78	5.44	5.60	5.99	6.06	6.14	1.75	1.85	1.95	2.10	2.28	2.42	2.52
district	6.06	5.77	6.40	6.75	7.24	7.37	7.44	1.55	1.91	2.26	2.90	3.53	3.76	3.91
florida	0.84	0.76	0.76	0.76	0.76	0.90	1.03	2.10	1.99	1.99	1.99	1.99	2.35	2.72
georgia	3.70	3.83	4.29	4.62	4.86	5.40	5.48	2.95	3.15	3.28	3.43	3.56	3.77	3.65
hawaii	7.60	7.71	8.36	8.42	8.77	8.65	8.65	5.84	6.30	6.49	6.48	6.43	6.45	6.84
idaho	6.05	6.09	6.18	6.36	6.53	6.62	7.08	3.24	3.44	3.62	3.66	3.86	4.01	4.79
illinois	3.45	3.51	3.51	3.50	3.48	3.48	3.98	4.67	5.09	5.12	5.04	4.97	4.99	5.30
indiana	2.85	2.83	2.53	2.73	2.73	2.73	4.04	3.64	3.85	3.65	3.68	3.71	3.73	5.14
iowa	3.19	3.11	4.83	5.08	4.33	4.69	5.21	2.96	3.04	2.98	3.08	3.27	3.37	4.00
kansas	3.26	3.26	3.28	3.49	3.54	3.50	3.57	3.15	3.32	3.20	3.10	3.19	3.29	3.36
kentucky	4.23	4.16	4.50	4.48	4.49	4.75	5.03	4.09	4.20	4.17	4.20	4.30	4.36	4.38
louisian	2.44	2.27	2.64	2.64	1.28	1.28	1.94	1.83	1.82	1.98	2.08	1.74	1.77	1.88
maine	3.81	3.96	3.86	3.90	4.12	4.24	4.41	3.27	3.09	3.24	3.40	3.52	3.61	3.67
maryland	5.79	5.81	5.49	5.56	5.67	5.67	5.67	4.56	4.76	4.61	4.58	4.63	4.70	4.74
massachu	5.57	5.55	5.74	5.73	5.70	5.70	5.70	5.93	6.32	6.77	6.54	5.64	5.73	5.71
michigan	5.47	5.41	5.41	6.58	6.58	7.08	8.33	5.03	5.23	5.33	4.90	4.98	5.38	6.32
minnesot	10.78	9.24	12.45	21.97	9.67	11.41	12.05	1.32	0.75	0.91	3.10	4.62	5.36	6.05
mississi	2.73	3.30	4.18	4.18	3.17	3.79	4.33	3.59	3.98	4.01	4.12	3.89	3.96	4.00
missouri	2.62	2.81	2.92	3.09	3.23	3.54	3.97	2.44	2.74	2.84	2.82	2.89	2.98	3.68
montana	4.43	4.47	4.56	4.47	4.18	4.37	4.60	2.11	2.18	1.99	1.90	1.99	1.91	1.94
nebraska	3.54	3.64	4.02	3.53	3.64	3.88	3.86	2.76	2.90	3.12	2.90	2.97	3.38	3.72
nevada	0.67	0.72	0.67	0.62	0.88	1.01	1.01	1.97	2.10	1.88	1.62	2.29	2.64	2.64
new hamp	.	.	.	.	.	.	.	.	.	.	.	.	.	.
new jers	2.92	2.76	2.83	2.81	2.79	2.79	2.93	3.04	3.13	3.17	3.15	3.17	3.21	3.62
new mexi	1.94	2.06	2.11	2.38	2.11	2.63	3.90	2.29	2.58	2.56	2.69	2.52	2.64	2.92
new york	5.62	5.59	5.98	6.19	6.45	6.50	6.63	4.24	4.35	4.30	4.44	4.58	4.33	4.39
n caroli	5.65	5.89	6.06	6.30	6.55	6.68	6.81	4.65	4.95	5.11	5.18	5.33	5.44	5.52
n dakota	2.39	2.56	1.87	1.87	1.35	2.53	3.47	2.34	2.38	2.17	2.19	1.63	1.90	2.88
ohio	1.80	1.69	1.74	2.36	2.75	3.37	4.48	2.39	2.39	2.41	2.45	2.77	3.37	3.56
oklahoma	2.21	2.47	2.55	2.77	2.88	3.14	3.48	1.82	1.98	2.08	2.17	2.22	2.22	2.29
oregon	1.92	1.85	1.89	2.06	2.24	4.79	5.48	0.12	0.17	0.14	0.19	0.24	0.45	0.71
pennsylv	2.95	3.10	3.10	3.10	3.10	3.10	3.35	4.05	4.39	4.39	4.39	4.40	4.40	4.67
rhode is	4.54	4.48	4.48	4.57	4.77	4.78	5.05	4.12	3.93	3.97	4.10	4.20	4.33	4.62
s caroli	4.59	4.82	4.97	5.26	5.60	5.73	5.84	4.07	4.39	4.52	4.61	4.71	4.81	4.88
s dakota	0.92	0.95	0.97	1.10	1.04	0.98	0.97	2.59	2.83	2.84	3.16	3.02	2.85	2.85
tennesse	0.92	1.01	1.01	1.00	1.01	1.01	1.01	3.59	3.96	3.96	3.96	3.97	3.97	3.97
texas	0.82	0.72	0.70	0.70	0.70	0.70	0.70	2.02	1.95	1.85	1.85	1.86	1.86	1.86
utah	5.37	5.33	5.59	5.62	5.84	6.49	7.05	4.96	5.16	5.28	5.40	5.49	5.68	5.89
vermont	4.91	5.04	4.68	4.78	4.97	4.67	4.49	2.98	3.00	2.89	3.05	3.14	3.23	3.41
virginia	4.02	4.03	4.07	4.47	4.12	4.36	4.53	3.24	3.43	3.54	3.67	3.89	3.99	4.09
washingt	1.12	1.06	0.98	1.00	1.01	1.26	1.43	3.10	2.87	2.56	2.58	2.60	3.52	3.88
w virgin	3.06	3.13	3.49	3.58	3.86	4.03	4.37	3.23	3.35	3.34	3.28	3.67	4.07	4.38
wisconsi	6.30	5.72	5.29	5.76	5.69	5.68	6.72	4.81	5.02	4.56	2.24	2.26	2.64	3.66
wyoming	0.71	0.70	0.70	0.70	0.70	0.70	0.70	1.98	2.09	2.09	2.09	2.09	2.09	2.09
federal	17.96	18.53	18.56	19.01	19.83	17.46	15.30	7.60	7.56	7.74	8.43	8.83	8.34	7.94
mean	3.70	3.68	3.82	4.12	3.91	4.08	4.44	3.47	3.62	3.63	3.57	3.64	3.76	4.01
std dev	1.93	1.84	2.11	3.05	2.03	2.13	2.23	1.11	1.24	1.28	1.19	1.16	1.13	1.20

Table 4.3
Combined Income and Sales Tax Rates

Summary for 1983

state	Marginal Rate			Average Rate		
	$10,000	$20,000	$40,000	$10,000	$20,000	$40,000
alabama	4.70	4.32	3.87	5.12	5.13	5.03
alaska	0.00	0.00	0.00	0.01	0.01	0.00
arizona	4.07	5.18	5.23	3.38	4.37	4.59
arkansas	5.25	6.87	7.49	4.16	5.22	6.58
californ	4.53	8.54	10.83	3.58	5.45	6.40
colorada	3.94	5.54	5.24	3.00	4.05	4.44
connecti	1.36	1.17	1.02	4.03	3.16	2.87
delaware	6.14	8.42	9.57	2.52	4.75	5.81
district	7.44	9.87	11.02	3.91	7.49	8.38
florida	1.03	0.88	0.77	2.72	2.43	2.17
georgia	5.48	6.62	6.48	3.65	5.24	5.82
hawaii	8.65	9.59	9.88	6.84	8.39	8.69
idaho	7.08	8.28	8.11	4.79	6.62	7.18
illinois	3.98	3.82	3.70	5.30	5.02	4.89
indiana	4.04	3.86	3.73	5.14	5.08	4.91
iowa	5.21	6.11	6.08	4.00	5.36	5.63
kansas	3.57	4.98	5.40	3.36	4.28	4.78
kentucky	5.03	5.17	4.59	4.38	5.29	5.29
louisian	1.94	3.54	4.45	1.88	2.50	2.92
maine	4.41	8.94	9.89	3.67	5.66	6.83
maryland	5.67	5.77	5.68	4.74	5.49	5.71
massachu	5.70	5.61	5.90	5.71	5.37	5.87
michigan	8.33	7.03	6.92	6.32	7.13	7.25
minnesot	12.05	11.91	11.16	6.05	8.90	10.44
mississi	4.33	5.24	5.64	4.00	4.77	5.24
missouri	3.97	4.81	4.57	3.68	4.61	4.76
montana	4.60	6.23	5.77	1.94	3.35	3.92
nebraska	3.86	5.72	7.48	3.72	4.22	5.08
nevada	1.01	0.87	0.75	2.64	2.35	2.10
new hamp	.	.	.	.	.	.
new jers	2.93	3.31	3.23	3.62	3.63	3.95
new mexi	3.90	7.95	9.43	2.92	4.48	5.71
new york	6.63	11.87	10.64	4.39	6.98	8.64
n caroli	6.81	7.59	7.57	5.52	6.38	6.90
n dakota	3.47	4.55	4.22	2.88	3.80	4.02
ohio	4.48	6.16	6.79	3.56	4.81	5.79
oklahoma	3.48	6.54	5.96	2.29	3.84	4.66
oregon	5.48	7.45	9.86	0.71	2.47	3.48
pennsylv	3.35	3.23	3.14	4.67	4.39	4.31
rhode is	5.05	7.57	9.96	4.62	5.37	6.56
s caroli	5.84	7.25	7.62	4.88	6.03	6.40
s dakota	0.97	0.81	0.69	2.85	2.47	2.16
tennesse	1.01	0.83	0.70	3.97	2.88	2.41
texas	0.70	0.60	0.52	1.86	1.66	1.49
utah	7.05	6.77	5.84	5.89	7.07	7.02
vermont	4.49	7.02	9.40	3.41	4.49	5.63
virginia	4.53	6.31	6.28	4.09	5.25	5.62
washingt	1.43	1.22	1.06	3.88	3.45	3.09
w virgin	4.37	7.31	9.13	4.38	5.48	6.15
wisconsi	6.72	9.62	10.27	3.66	6.12	7.07
wyoming	0.70	0.58	0.49	2.09	1.80	1.56
federal	15.30	25.25	34.61	7.94	11.78	17.17
mean	4.44	5.76	5.98	4.01	4.87	5.32
std dev	2.23	3.22	3.44	1.20	1.61	2.02

Table 4.4

Average and Marginal State Tax Rates After Federal Deduction: 1979 Law and Actual Incomes

state	percent itemizers	average rates gross	average rates net	marginal rates gross	marginal rates net
alabama	22.10	5.07	4.34	3.80	3.55
alaska	37.72	0.01	0.01	0.00	0.00
arizona	31.92	5.11	4.21	3.87	3.48
arkansas	24.61	5.34	4.58	5.05	4.63
californ	36.12	6.18	4.12	5.86	4.91
colorada	41.82	3.94	3.07	3.73	3.25
connecti	31.07	3.13	2.63	1.06	0.98
delaware	17.91	4.27	3.49	5.15	4.69
district	30.44	6.52	4.91	7.11	6.21
florida	24.06	1.97	1.74	0.70	0.66
georgia	28.52	4.87	3.98	4.51	4.04
hawaii	26.80	8.01	6.60	7.50	6.83
idaho	37.42	5.48	4.45	5.92	5.20
illinois	27.02	4.98	4.19	3.40	3.14
indiana	23.59	3.72	3.23	2.37	2.22
iowa	22.82	4.55	3.77	3.58	3.25
kansas	27.18	4.18	3.57	3.55	3.20
kentucky	25.66	5.08	4.34	4.18	3.87
louisian	19.28	2.73	2.33	2.52	2.33
maine	18.54	4.71	4.07	4.04	3.68
maryland	35.70	5.57	4.27	4.87	4.23
massachu	32.28	6.05	4.90	5.09	4.60
michigan	43.63	5.54	4.28	5.40	4.73
minnesot	32.03	5.61	4.17	7.52	6.65
mississi	19.68	5.03	4.36	2.71	2.48
missouri	21.46	3.75	3.26	2.96	2.75
montana	31.88	3.00	2.55	4.02	3.68
nebraska	23.02	3.96	3.26	3.97	3.59
nevada	26.39	1.81	1.56	0.53	0.50
new hamp	19.22	0.20	0.17	0.00	0.00
new jers	27.51	3.55	2.82	2.27	2.02
new mexi	21.05	3.65	3.07	2.93	2.63
new york	35.31	7.13	5.34	7.33	6.13
n caroli	23.33	6.19	5.20	5.72	5.25
n dakota	26.59	2.92	2.48	2.00	1.81
ohio	23.24	3.18	2.67	2.29	2.06
oklahoma	28.35	3.28	2.75	3.56	3.20
oregon	33.65	1.54	1.19	3.38	2.88
pennsylv	25.49	4.35	3.75	2.93	2.72
rhode is	27.41	5.03	4.02	4.39	3.85
s caroli	29.76	5.56	4.69	5.17	4.69
s dakota	13.86	2.91	2.72	0.97	0.94
tennesse	21.30	3.19	2.84	1.42	1.38
texas	22.17	1.78	1.55	0.63	0.59
utah	31.19	6.20	5.11	5.39	4.92
vermont	21.02	3.98	3.27	4.31	3.89
virginia	31.30	4.93	3.94	4.30	3.74
washingt	24.10	2.42	2.10	0.82	0.77
w virgin	26.11	4.34	3.66	4.02	3.62
wisconsi	34.43	5.17	3.98	7.81	7.10
wyoming	16.25	1.92	1.75	0.67	0.64
average	28.80	4.60	3.64	3.94	3.48