

The Ups and Downs of the Connecticut Income Tax

By Steven P. Lanza

Taxes are the price we pay for government services, and according to the latest Connecticut income tax figures for 1999 that price, compared to the year before, is up...and it's down. It all depends on what group you fall into.

Taxes were up in 1999, over 1998, for some upper income taxpayers because their incomes rose. Taxes were down for some lower and middle-income taxpayers because their incomes failed to grow. On balance, Connecticut's income distribution grew more unequal across income groups and across towns. Even so, Connecticut's income tax remains progressive, overall, and incomes are only slightly less equally distributed in Connecticut than in the U.S. as a whole.

The average tax per Connecticut income tax return reached \$2,242 in 1999, up 5.3% from 1998. Why the jump? Tax rates themselves haven't increased. In fact, tax year 1999 brought yet another reduction in the effective tax rate. Moreover, the property tax credit rose in 1999 (and did so again in 2000).

No, what drove the state's higher tax take was the rising incomes of Connecticut residents. Adjusted gross income (AGI) per return reached an average of \$77,046 in 1999, an increase of 6.4% from 1998. Also, total AGI from all filers jumped 8.7%, total revenue from the income tax increased 7.6%, and the number of filers increased 2.1%. So with higher incomes offsetting both lower effective rates and expanded tax credits, the average Connecticut filer's tax bill went up.

By the Numbers

But changes in average taxes alone are not the whole story, because the burden of Connecticut's income tax is not shared equally. The rich pay an overwhelming share of the income tax in Connecticut, and that biases upward any estimate of the average tax burden. With taxes skewed toward high-income taxpayers, the median or middle taxpayer better represents the typical taxpayer. And for that taxpayer, the state income tax bill

the average tax per return for taxpayers in that group fell 5.1%, from \$662 to \$628.

One reason for the decline in taxes at the median is that middle and lower income individuals have benefited most from tax rate reductions and expansions of the property tax credit. In 1998, taxpayers filing jointly were taxed 3% on any AGI below \$15,000 and 4.5% on AGI above that amount. In 1999, however, the 3% bracket expanded to include all AGI below \$20,000. Moreover, in 1999 the property tax credit increased to \$425, though the wealthiest taxpayers were limited to a credit of just \$100.

But another reason for the decline in taxes at the median is that the AGI of the median taxpayer also declined. Between 1998 and 1999, the average AGI of all taxpayers at the median or below dropped from \$20,723 to \$20,620 or by 0.5%. That extends a trend dating back to 1992, the first full year of the income tax. Since then, the average AGI of this bottom half of the AGI distribution has fallen a total of 3.4% or by 0.5% per year. With lower AGIs, lower rates, and higher credits, the average tax paid by the poorest half of all filers declined 7.8%—from \$206 in 1998 to \$190 in 1999. As a group, these poorest Connecticut taxpayers earn just 13.5% of the total AGI reported by all filers and pay only 4.2% of all income taxes.

With the bottom half of taxpayers paying just 4.2%, that leaves the top half of the income earners paying the remaining 95.8% of income taxes. But growing incomes among this group of taxpayers have made that easier to do. In 1999, the top 50% of Connecticut income tax filers earned 86.5% of total reported AGI. That's up from 77.4% of total AGI in 1992. The average tax per return for these top-half filers increased 4.8% to \$4,319 between 1998 and 1999. At the same time, their average AGI rose to \$134,171—an increase of 6.5%. Since 1992, the average AGI of taxpayers above the median has jumped 41.6%.

Letting the Gini Out

Connecticut incomes are concentrated among a relatively small group of taxpayers, and the tax burden is borne disproportionately by those with higher incomes. But isolated comparisons of the mean to the median or the top to the bottom provide little intuition about the concentration of Connecticut incomes or the progressivity of Connecticut tax payments. For insights on these issues, economists use a simple graphical tool called a Lorenz curve and its numerical equivalent, the Gini coefficient.

The two panels in the graph opposite show Lorenz diagrams. The vertical and horizontal axes in the top panel measure the cumulative percentages of tax returns and AGI, respectively, with tax filers ordered so that those with the lowest AGIs come first, followed by those with increasingly higher incomes. A perfectly equal distribution of adjusted gross income would lie along the 45° line. Ten percent of the filers would account for 10% of

Who Pays the Connecticut Income Tax ?

Taxpayers:	1999 Amount	1998-99 % Change	1992-99 % Change	% of Total
Average				
Tax	\$2,242	5.3	40.7	NA
AGI	\$77,046	6.4	44.6	NA
Average below Median				
Tax	\$190	-7.8	-40.0	4.2
AGI	\$20,620	-0.5	-3.4	13.5
Average above Median				
Tax	\$4,319	4.8	32.8	95.8
AGI	\$134,171	6.5	41.6	86.5

went down in 1999 compared with 1998. In both years, the median taxpayer reported an adjusted gross income of between \$35,000 and \$40,000, but

the AGI, 50% of filers 50% of the AGI and so on. With AGIs unequally distributed, however, the Lorenz curve dips below the 45° line. The more the Lorenz curve bows away from the 45° line, the more unequal the income distribution. There are two such bowed lines here, one for the the United States and one for Connecticut. Their shapes demonstrate that AGIs are not equally distributed among tax filers.

A numerical expression of the degree of inequality is the Gini coefficient, which is the ratio of the area between the 45° line and the Lorenz curve to the total area below the 45° line. The Gini coefficient can vary from zero, where incomes are equally distributed and the Lorenz curve is the 45° line, to a value of one, where a single individual has all the income.

Connecticut's Gini coefficient for AGI measured 0.61, according to the 1999 data. Thus, incomes are distributed relatively unequally among the state's tax filers. Moreover, the distribution has grown more unequal over time: In 1992 the Gini was 0.51. Though the numbers may suggest a high degree of inequality in Connecticut, they nearly match measures obtained using comparable U.S. tax figures. In 1998, for example, the U.S. Gini coefficient for AGI was 0.57. So AGIs are not much more concentrated in Connecticut than in the U.S. as a whole.

A similar Gini coefficient can show the distribution of the tax burden among income tax filers. Now, however, higher coefficients would correspond to a more progressive tax system (where higher income earners pay an increasing share of taxes). Here, Connecticut's tax Gini coefficient is relatively low, measuring 0.13 in 1999. This measure of the distribution of the tax burden has held fairly constant over the history of the income tax: it was 0.14 in 1992. But a comparable calculation for the U.S. shows a more progressive tax structure. In 1998, the U.S. tax Gini measured 0.29.

The greater progressivity of the U.S. tax structure comes from its increasing marginal tax rates. Connecticut, by contrast, has only two marginal rates, 3% and 4.5%. Our structure is made more progressive by exempting many low-income earners from any tax, which effectively taxes them at a 0% rate. The tax Gini described above misses this group and hence understates the overall progressivity of Connecticut's tax system, because the 0% ratepayers don't all file state tax returns even though most have to file federal returns.

This hitch can be overcome by constructing a modified Connecticut tax Gini that compares the AGIs of Connecticut residents who pay federal taxes with the state income taxes paid by those people. The latest data, for 1997, show that under this broader measure of AGI, Connecticut's tax Gini rises from 0.14 to 0.17. It's an improvement, but still far below the 0.29 measure for the federal income tax. This difference is reflected in the Lorenz curves in the lower panel of the graph.

A State of Contrasts

Just as Connecticut AGIs are becoming increasingly concentrated among income groups, tax data by town suggest that average income taxes per return, and hence the underlying taxable incomes, are showing increasing geographic concentration.

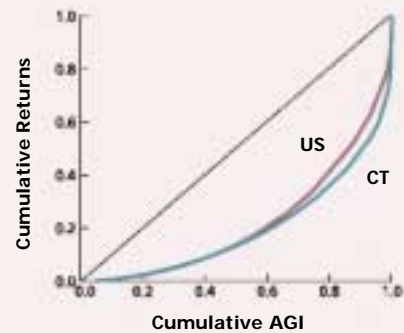
The centerfold (pages 10-11) maps the average tax per return in 1999 by town. The five highest towns were, from the top, New Canaan, Greenwich, Weston, Darien, and Westport. All five are in Fairfield County, all five appeared in the same order in 1998, and all five also topped the list in 1992. The five lowest towns were, from the bottom, Hartford, and Bridgeport—the state's poorest central cities—and Sterling, Thompson, and Killingly—rural towns along the Rhode Island border. The same five towns ranked in the bottom six in 1998 and in the bottom seven in 1992.

Although the top and bottom town rankings have remained stable over the years, the geographic distribution of the tax burden has not. By treating each town as an equal unit, arraying them by average tax per return from lowest to highest and plotting each town's proportion of the total average tax burden, we can construct a Gini coefficient for the geographic dispersion of average tax per return. In 1992, it equaled 0.23. By 1998 it had risen to 0.31, and in 1999 it reached 0.34.

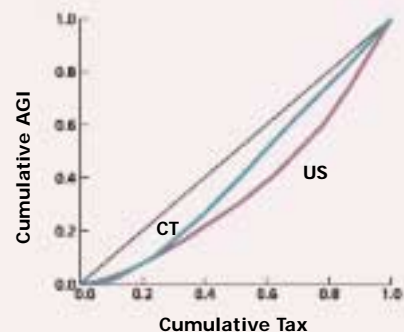
Remembering that higher ratios correspond to greater levels of concentration, the rising Gini tells us that the average tax per return across towns has grown more unequal over time. Thus, the tax burden, and the underlying taxable incomes, have become more concentrated among the richest Connecticut towns.

The bottom line: Connecticut's income tax, with its "front end" exemptions, is very progressive for low income filers, but the flat rates at higher incomes make the tax less progressive, overall, than the federal income tax, with its increasing marginal rates.

Measuring Inequality in Income...



...And in the Tax Burden



The shape of a curve measures the degree of income or tax inequality—the more bowed away from the straight line, the more unequal the distribution.

Developed by The Connecticut Economy based on data from the Connecticut Department of Revenue Services and the U.S. Internal Revenue Service.