

“Further Evidence” on the Linkage Between Income Taxes and Economic Growth? October 13, 2000

A topic of substantial recent interest in New Hampshire has been the potential impact of a broad-based personal income tax on the state’s economy. In a November 1999 analysis written for the National Taxpayers Union (NTU), Thomas Dye argued that the adoption of personal income taxes has led to slower state economic growth. Focusing on the nine states that most recently adopted personal income taxes, Dye compared economic growth before the adoption of the tax to growth afterwards¹. Dye found that six of these nine states experienced slower economic growth following adoption of the tax, and concluded that this result constituted “strong econometric evidence” that the adoption of income taxes “has a significant adverse effect on [a] state’s economy.”

A November 1999 ITEP analysis pointed out that in fact, all fifty states saw lower growth in per-capita personal income (income per-person) after 1970 than before 1970, and that most of the nine states adopting income taxes in this period actually performed above the national average. Moreover, ITEP’s analysis noted that the nine states adopting income taxes between 1967 and 1976 collectively had higher growth in per capita personal income than the nine states without broad-based income taxes.

Dye’s response to the ITEP analysis, also issued in November of 1999, replicates ITEP’s result, with one critical change—Dye’s analysis uses total state personal income as a measure of growth, rather than per-capita income as in ITEP’s analysis. This change has a substantial impact on the results of the analysis. The chart at right compares the impact of each approach in constant 1995 dollars: while total personal income grew more rapidly in the nine states without an income tax, total per capita income grew more rapidly in the states that did adopt income taxes.

Average Annual % Change in Personal Income Constant 1995\$		
States that Adopted an Income Tax		
State	Personal Income	Per Capita Personal Income
Connecticut	2.6%	2.2%
Illinois	1.8%	1.5%
Maine	2.5%	1.8%
Michigan	1.8%	1.5%
Nebraska	2.0%	1.8%
New Jersey	2.5%	2.0%
Ohio	1.6%	1.4%
Pennsylvania	1.7%	1.6%
Rhode Island	2.3%	2.0%
Average	2.1%	1.8%
States that did not Adopt an Income Tax		
State	Personal Income	Per Capita Personal Income
Alaska	2.3%	-0.4%
Florida	4.1%	1.6%
Nevada	5.5%	1.2%
New Hampshire	3.6%	2.1%
South Dakota	2.3%	1.9%
Tennessee	3.3%	2.4%
Texas	2.9%	1.1%
Washington	3.0%	1.1%
Wyoming	0.0%	-0.0%
Average	3.0%	1.2%

Source: Bureau of Economic Analysis

¹In particular, Dye examined state economic growth during two periods: the period from 1950 until the year of income tax adoption, and the period from tax adoption until 1998. The nine states examined were Connecticut, Illinois, Maine, Michigan, Nebraska, New Jersey, Ohio, Pennsylvania, and Rhode Island.

Per-capita income is a better measure of the real economic well-being of a state's residents. A simple example illustrates the difference: imagine that income in the state of Texas doubled during a period of time when the state's population doubled. Obviously, the average person would be no better or no worse off after the doubling of income and population than they were before the doubling of income and population. And yet, if one used income growth as the measure of well-being one would falsely conclude that people in Texas were 100% better off. Conversely, if one used per capita income growth as the measure of well-being, one would correctly conclude that people in Texas were 0% better off.

The per-capita income-growth measure yields such different results from the total income measure because population growth has been much greater in the nine states without income taxes than in the nine states that adopted income taxes. Dr. Dye and his ideological brethren would probably argue that the reason for the difference is that people like to move to states without income taxes. But that is a hard argument to make in any principled way.

The no-income tax states are unusual in several ways. For one, two of them are destinations of choice for foreign immigrants. It is unlikely that the 22,000 Cubans who immigrated to Florida in 1996 chose the state because it had no income tax, or that 44,000 Mexicans chose Texas for that reason.

In addition, the average population density of the no-income-tax states was 81.4 people per square mile in 1998, compared to 412 in the income-tax-adopting states. Over this period, Nevada's population more than doubled—growing by 118 percent. This growth was possible, in part because, even now, the state's population density is only 15.9 people per square mile. New Jersey, an income-tax-adopting state, has a density of 1,093.8. Rhode Island is at 945.9, Connecticut at 675.7. Doubling the population of these states, while maintaining a quality of life that would attract people, would have been next to impossible. Crediting income growth attributable to growing population to the lack of an income tax is a serious flaw in Dr. Dye's approach.

A more fundamental flaw in all of the statistics presented by Dye (and by ITEP above) is that none of these statistics take into account the differences between states, other than tax policy, that affect state economic growth. Neither approach sheds any light on whether the measured change is the result of tax law changes, government spending behavior, regional and national economic trends, demographic changes, or the weather. Dye's response to this difficulty is to ignore it. Dye argues that since states adopting income taxes are fundamentally different from states not adopting income taxes, the best way of controlling for these differences is to look only at the nine states that adopted income taxes:

“Before and after studies of the effects of policy change in individual states is the preferred form of analysis for all serious members of the economic profession. Comparisons of states that adopted a policy and those that did not complicates analysis, because of the many differences between states.”

Dye argues that the use of a control group “complicates analysis” and notes that “the many differences between states” makes “isolating various economic developments and tracing them to an income tax...highly difficult.” This is precisely the point: state economic growth is determined by an array of social, economic and political factors determined on the local,

national, and international levels. Ignoring these factors makes Dye's analysis simpler—but also robs it of any real worth. Dye's original results are confounded by the fact that any external factor affecting economic growth (like the collapse of military procurement in Connecticut) could be responsible for the pattern he attributes to income tax adoption.

Time series analysis—what Dye refers to as “before and after studies”—can be a very useful approach to measuring the impact of a change that occurs under controlled experimental conditions—that is, conditions under which the researcher can control all factors other than the policy change that is of interest.

Yet the experience of these nine states in no way approximates “controlled experimental experimental conditions.” Even casual reflection should reveal that many factors affected state economic growth between 1950 and the present day—none of which are controlled for by Dye's research design. Dye simply asserts that the empirical relationship he finds is a meaningful one—without testing alternative hypotheses about why this relationship might exist.

Of course, it is possible that what hurt the economies of the income-tax-introducing states was their adoption of income taxes and what hurt the economies of all other states was something different. The more probable conclusion, however, is that it was factors affecting the national economy that caused the phenomena that Dye observes, not the particular tax policy changes in those states.

What is to be made of all these dueling statistics? Not much. Examining economic growth rates before and after a single policy change without attempting to control for other causal factors is not an exercise which should be taken seriously. The impact of tax law changes on economic growth is, rightly, a topic of great interest. But Dye's analyses add precisely nothing to our understanding of the effect of income taxes on state economic growth.