More Inaccuracies, Bigger Omissions
Arthur Laffer’s Newest Study of Income Tax Repeal Falls Short

Executive Summary

Arthur Laffer’s consulting firm—Arduin, Laffer & Moore Econometrics (ALME)—has released a report purporting to show that North Carolina could usher in an economic boom if it repeals its personal and corporate income taxes and replaces them primarily with a much larger sales tax. Prepared for the Civitas Institute, “More Jobs, Bigger Paychecks” relies on an economic analysis that is fundamentally flawed to the point of making it entirely useless.

Specifically, the report:

- **Fails to control for a large range of important non-tax factors that affect state economic growth.** Since many of these factors—such as natural resource advantages and federal military spending—are stacked in favor of states without income taxes, this means that the ALME analysis is incapable of teasing out the specific impact of income tax policy on state economies.

- **Confuses cause and effect by assuming that declines in personal income in 2008 were due to taxes rather than the Great Recession.** The analysis fails to acknowledge that state tax increases—like the one North Carolina enacted in 2009—are often implemented in response to slow revenue growth following a national economic downturn. One practical consequence of this failure is that ALME has assumed the decline in personal income seen in North Carolina in 2009 is due not to the Great Recession, but to increases in the state income tax rate.

- **Fails to examine the impact of increased sales taxes on the economy.** The ALME tax plan proposes to pay for personal and corporate income tax repeal by expanding the sales tax and real estate conveyance fee, and enacting a new business license fee. Two-thirds of the revenue raised through these changes is projected to come from the sales tax, but ALME does not explain what impact it expects a higher sales tax to have on North Carolina’s economy. The other third of the revenue raised is said to come from the real estate conveyance fee and business license fee, but neither of these revenue-raising measures is included in ALME’s analysis.

- **Makes claims that have been previously discredited by mainstream economists and relies on misleading and cherry-picked data.** In addition to its central statistical analysis, the ALME report also repeats claims that it has made in the past regarding the allegedly superior economic performance of states without income taxes. Those claims rely on cherry picking a number of
blunt, aggregate economic measures that are closely correlated with population growth, and simply asserting that state income tax policy is the driving force behind differences in population growth among the states. If population trends are controlled for, states with income taxes are doing at least as well, if not better, than their no-tax counterparts in terms of median income growth, growth in economic output per person, and the unemployment rate.

- Ignores the importance of taxes in financing public investments that have a far greater positive impact on economic growth than reducing tax rates. In contrast to ALME's deeply flawed report, a number of more careful, peer-reviewed academic studies have found state income taxes to have little or no effect on state economic growth. The economic theory espoused throughout the ALME study fails to recognize that individuals and businesses alike need the state to continue providing a good education system, well-maintained roads, an efficient legal system, and other public services in order to succeed.

In proposing a policy course that no state has ever taken—repealing the personal and corporate income taxes without a wealth of oil reserves to fall back on—ALME and the Civitas Institute have laid out an untested and potentially disastrous plan without any evidence that it will benefit the state's economy.

**ALME's Findings and Context**

North Carolina Senate President Phil Berger said he intends to push for eliminating North Carolina's personal and corporate income taxes during the 2013 legislative session, and Governor Pat McCrory is reportedly open to the idea. Against this background, a consulting firm headed by the economist Arthur Laffer—Arduin, Laffer & Moore Econometrics (ALME)—has performed an analysis purporting to show that North Carolina could usher in an economic boom if it repeals its personal and corporate income taxes, and replaces them primarily with a much larger sales tax. The report, titled "More Jobs, Bigger Paychecks," was prepared for the North Carolina Civitas Institute and claims that:

*A consumption-based tax reform can increase North Carolina's average annual rate of personal income growth by 0.38 percent to 0.66 percent. Had a consumption-based tax reform been implemented in 2000, North Carolina's combined personal income would be as much as $25.0 billion higher in 2011 than it was under the status quo. Additionally, the accelerated income growth would have created as many as 378,000 more jobs."

While the report is short on details explaining exactly how it reached this conclusion, even the few specifics it does provide are enough to show that the analysis is deeply flawed to the point of being useless for predicting the economic impact of tax reform.

**Analysis Fails to Control for Non-Tax Factors that Impact Growth**

The ALME analysis that produced the job and income figures in the above paragraph considers only four variables to be of any importance in determining state economic growth: income tax rates, sales tax rates, state and local government spending, and geographic region.

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As in previous studies by Arthur Laffer, the analysis fails to control for a huge range of important variables, other than taxes, that influence state economic growth. This failure is astonishing because Laffer and the Civitas Institute conceded in an October 2012 report, issued barely two months before the new ALME analysis, that a huge range of factors aside from taxes can influence state economic growth. Among the factors identified by Laffer and Civitas as affecting state growth is the availability of energy resources, military spending by the federal government, agricultural sector performance, quality of schools, condition of highways, weather, and even the presence of beaches.4

Out of this lengthy (but far from comprehensive) list, the only factor that ALME acknowledges in its newest report is weather. But the authors’ effort to control for the “preference of people to live in [favorable] climates” is comically inadequate. Specifically, they break the United States into nine large regions that have very little to do with climate.5 One region, for example, stretches all the way from Baltimore to Miami. Another reaches from Phoenix to Denver and into northern Montana. And a third actually encompasses such locales as San Diego, Seattle, Honolulu, and Fairbanks.6 As a result, it’s little wonder that ALME found most of their regional identifiers to have no statistically significant impact on their findings.7

Even more troubling than the lack of adequate controls for differences in climate is the authors’ decision to completely ignore a number of other important non-tax factors. Most obviously, the authors overlooked the fact that states without income taxes often choose not to levy an income tax precisely because they possess one or more unusual economic advantages that allow them to generate tax revenue (and grow their economies) in ways that other states cannot easily replicate. Statisticians refer to this failure as “omitted-variable bias,” since the economic advantages overlooked by ALME are correlated with both the outcome being measured (personal income growth), and one or more of the independent variables that ALME alleges is contributing to that outcome (income tax rates).

Interestingly, the group that hired Laffer’s firm, the John W. Pope Civitas Institute of North Carolina, seems to understand this point far better than ALME itself. The Civitas staffer that has had the most public involvement in group’s tax policy work actually acknowledged that Alaska’s decision to repeal its income tax in 1980 came “on the back of a huge [oil] pipeline. They had a lot of royalty revenue coming in from that.”8 But the new ALME report gets the causation exactly backwards—essentially claiming that tax policy decisions made in the 20th century are what led massive amounts of oil and natural gas to form under Alaska, Nevada, Texas, and Wyoming millions of years earlier.

Natural resources are far from the only important factor that ALME overlooks in its attempt to explain state economic growth. In the past, Laffer and Civitas correctly pointed to federal military spending as an important factor benefiting the economies of states like Virginia. But the authors failed to note (both now and in their previous work) that five of the nine states without broad-based personal income taxes depend on federal military spending for a greater-than-average share of their state economic activity. And that seven of those nine states have seen federal military spending within their borders grow at a rate faster than the national average over the last decade.9

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6 U.S. Census Bureau. “Census Regions and Divisions of the United States.” Available at: https://www.census.gov/geo/www/us_regdiv.pdf
7 The variables for the South Atlantic, East North Central, and Mountain regions were found by the authors to be statistically significant. The authors also found a weak statistical significance for the West North Central variable.
9 ITEP analysis of data covering 2000 to 2010 (the most recent year available) from the Bureau of Economic Analysis (BEA). Professor Dave Ribar of UNC Greensboro also pointed out this shortcoming of the ALME analysis on his blog at: http://appliedrationality.blogspot.com/2012/12/civitas-immiserating-tax-
Tourism is another important factor that provides certain states with an unusual knack for drawing in outside dollars and growing their economies. Tourism also affords many of those same states the luxury of generating substantial consumption tax revenues from non-residents, as opposed to through the income tax. Four states without income taxes—Alaska, Florida, Nevada, and Wyoming—are ranked among the top states in the country in terms of reliance on tourism-related jobs.10

**Analysis Confuses Cause and Effect**

The lack of adequate controls is not the only problem that ALME has repeated from its prior analyses. As Professor Mickey Hepner of the University of Central Oklahoma tried to explain to Arthur Laffer at an event hosted by the Oklahoma Chamber of Commerce, “what we saw in the 1980s was … it’s not the tax cuts that led to the growth, it’s the growth that led to the tax cuts.”11 In other words, state tax cuts are most likely to gain enactment when strong economic growth has resulted in a better situation for state budgets. On the other hand, state tax increases are frequently enacted when tax revenues fall during an economic downturn.

While Laffer may disagree with state lawmakers’ decisions to preserve state services with higher tax rates during economic downturns, the fact that this occurs is not controversial. The National Conference of State Legislatures (NCSL) keeps better track of state tax changes than any other organization and has found that “significant tax increases tend to occur while [state budget] balances are falling, or after they have fallen, as experience over the last three recessions shows.”12 North Carolina is a textbook example of this trend, having enacted personal and corporate income tax increases in 2009 just as the state’s total personal income (the variable being measured by ALME) declined for the first time in decades in response to the Great Recession.13

The NCSL’s finding is very significant to ALME’s analysis because it creates a problem of “reverse causality.” Not only did the higher tax rates sometimes observed during periods of weak economic growth not cause that weaker growth, in many cases, they were an explicit response to it.

Laffer’s only response to this criticism has been to simply deny, using anecdotes about Michigan and New Jersey, that states raise taxes during economic downturns and vice versa, all evidence compiled by NCSL to the contrary.14

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10 These states made up four out of the top five states in terms of “travel and tourism employment as a percent of total non-farm employment” in “The Impact of Travel on State Economies,” U.S. Travel Association, June 2009. Available at: [http://commerce.idaho.gov/assets/content/docs/Research/Impact%20of%20Travel%20on%20State%20Economies%202009.pdf](http://commerce.idaho.gov/assets/content/docs/Research/Impact%20of%20Travel%20on%20State%20Economies%202009.pdf)


14 Laffer also points to a number of historical examples at the federal level that he says run counter to this trend, but this observation misses the point. Nearly every state, unlike the federal government, is required to balance its budget each year. As a result, large declines in state revenue following an economic downturn have to be addressed almost immediately through tax increases or spending cuts, and states have traditionally opted for a mix of both. Given the lack of a federal balanced budget requirement, the fiscal policy options available to Congress in the wake of an economic downturn are fundamentally different. When the economy weakens and revenues decline, Congress often uses its ability to run deficits by enacting economic stimulus measures that reduce taxes (or increase spending) even in the face of those declining revenues. See The Laffer Center and the Civitas Institute. “Taxes Really Do Matter: Look at the States.” October 2012. pp. 7. Available at: [http://www.nc civitas.org/2012/taxes-really-do-matter-look-at-the-states/](http://www.nc civitas.org/2012/taxes-really-do-matter-look-at-the-states/)
Numerous Other Statistical Problems and Lingering Questions

The “omitted-variable bias” and “reverse causality” problems described in the previous two sections are important enough problems on their own to render the ALME analysis useless for purposes of explaining state economic growth. Those observers left with lingering doubts about whether or not to trust the ALME analysis, however, should be aware that these are not its only shortcomings.

First, the analysis does not include all of the tax changes proposed by ALME. The economic impact of collecting $4 billion in new business license fees and $0.4 billion in expanded real estate conveyance fees is not analyzed, despite these two measures being responsible for more than one out of every three dollars in new taxes raised to pay for the repeal of the personal and corporate income taxes. 15

Second, the authors do not adequately explain what, if any, economic impact they expect from expanding North Carolina’s sales tax. A table in an appendix to the report shows higher sales taxes to be associated with stronger state economic growth (and under one of the authors’ two equations, high sales taxes are shown to be even better for a state’s economy than low income taxes). But in direct contradiction to this finding, ALME asserts elsewhere in the report that “higher average marginal sales tax rates … should be unrelated to the rate of economic growth.”16 As a result, it appears that ALME’s analysis involves one of two bizarre assumptions—it either assumes that a higher sales tax rate in North Carolina would accelerate the growth in jobs and income in the state, or it simply ignores its own findings about the relationship between sales taxes and economic growth by assuming an expanded sales tax will have exactly zero impact on the state’s economy.

Third, the authors implicitly acknowledge that their “high growth” estimates of $25 billion in additional income and 378,000 in new jobs from their tax plan are based on a flawed measure of state tax rates. Specifically, the authors explain that they chose to produce a second, “low growth” estimate ($14.4 billion in new income and 217,000 jobs) of the economic impact of their tax plan because in their first estimate, “both time series are growing over time”—a common econometric problem that makes it difficult to draw meaningful conclusions from a regression analysis. But rather than abandoning this regression as fatally flawed, they present it as an equally valuable alternative to the “low growth” estimate.

Fourth, the slightly improved equation used to produce the “low growth” estimate found only found a weak statistical link between income tax rates and economic growth—even with all of the other statistical problems mentioned above that stack the deck in favor of finding a relationship. Moreover, as mentioned above, high sales taxes were actually found to be much more important to state economic growth than low income taxes under the “low growth” estimate.17

Finally, the authors claim that their analysis shows 217,000 to 378,000 new jobs could be created by their tax plan, but nowhere do they even attempt to analyze the impact of state taxes on job creation. Rather, they provide only a ten word explanation that their job figures are “based on the connection between income growth and employment growth,” and appear to assume a simple linear relationship whereby every $66,000 in new income will always create one new job.18 In reality, the impact of personal income growth on job creation can vary dramatically depending on how that growth is distributed among different groups, and whether most of it is spent or invested in-state or out-of-state.

15 The other $7.6 billion is said to be raised through the expanded sales tax. ALME and the Civitas Institute. "More Jobs, Bigger Paychecks." December 2012. pp. 5. Available at: http://www.nccivitas.org/2012/more-jobs-bigger-paychecks/
17 See “Estimate 2” in Table A-1, http://www.nccivitas.org/2012/more-jobs-bigger-paychecks/. This is found by the authors to be significant at only the 0.067 level, rather than the traditional 0.05 level.
At Odds with the Academic Literature

Peer-reviewed academic papers that are not afflicted by the statistical problems identified above have often reached a very different conclusion than the ALME study: namely, that personal and corporate income taxes have little if any effect on state economic growth. Alm and Rogers (2011), for example, tested the impact of more than 130 explanatory variables in attempting to explain state economic growth, including not just tax and spending factors, but many geographic and demographic variables as well. They found that neither corporate nor personal income taxes reduced state economic growth, and that in some cases higher taxes are actually associated with stronger growth.19

Reed and Rogers (2004) studied the same mid-1990’s personal income tax cut in New Jersey that Laffer and the Civitas Institute have claimed was responsible for a “mini-boom” in the state’s economy. Using a difference-in-difference approach to compare growth rates in New Jersey counties with those in nearby counties, the authors concluded that “this study’s analysis does not support the hypothesis that tax cuts stimulated employment growth in New Jersey.”20

Using state data spanning nearly two decades, Chernick (2010) found that “income tax burdens do not have a [statistically] significant effect on growth,” and that “the progressivity of a state’s tax structure does not have a statistically significant effect on the rate of growth of personal income.”21

Tomljanovich (2004) examined developments in the states from 1972 to 1998. While the study found some evidence that state tax cuts can be stimulative for the economy in the short-run, it also found that “long-run growth is unaffected by changes in state tax rates, even after adjusting for the effects of initial per capita output levels, state expenditures, and aid from the federal government.”22

States without Income Taxes Are Not Experiencing an Economic Boom

Aside from its central statistical discussed above, the ALME and Civitas report also contains some familiar, but simplistic comparisons of growth rates in states with and without income taxes. Specifically, the authors claim that states not levying an income tax have seen stronger economic growth than other states, and that this growth must be related to their decision not to levy income taxes.23

ITEP debunked a very similar claim in February 2012, after ALME made it in the context of a debate over repealing Oklahoma’s income tax.24 In short, both the previous and current versions of this argument rely on cherry picking a number of measures of economic growth that are closely related to population trends (total income, total economic output, and total jobs) and asserting that tax policy is a leading force behind the interstate migration trends that fuel this growth.25

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24 ITEP. “‘High Rate’ Income Tax States are Outperforming No-Tax States.” February 2012. Available at: http://www.itep.org/debunkinglaffer/
25 Professor Dave Rihar of UNC Greensboro pointed out on his blog that total economic output is also highly sensitive to changes in the prices of goods and services produced by each state, entirely independent of what is happening to actual production quantities, or to tax policy. He shows that in large part because of the dependence of states without income taxes on energy production—and recent increases in the price of energy—the states without income taxes as a group have had a natural advantage in terms of GDP growth over the last decade. See: http://appliedrationality.blogspot.com/2012/12/all-i-need-is-miracle-growth-in-no.html
But ALME provides no persuasive evidence that lower income tax rates are contributing to states’ population trends in any meaningful way. In fact, Laffer and the Civitas Institute have previously said that “of course, we all know that taxes are not alone in explaining migration patterns among states.” And yet somehow the authors maintain that simple comparisons of migration patterns between states can somehow illuminate the effect of taxes on people’s location decisions.26

In its newest report, ALME glosses over the issue of population growth entirely, presumably because North Carolina has experienced substantial net in-migration over the past decade even with an income tax rate that ALME has called “exceptionally high.”27 But in an October 2012 report, Laffer and the Civitas Institute did cite three pieces of evidence to support their argument that income taxes drive population trends. The first was a figure from a conservative Texas think tank simply counting the number of people that move to Florida, Nevada, Texas, and other states without income taxes on a typical day of the week.28 The second was a comparison suggesting that people want to move into states without income taxes for the same reason that people wanted to migrate from East Germany to West Germany during the Cold War, and from North Korea to South Korea today.29 The third was the incomprehensible assertion that “In the exact same sense that smoking causes lung cancer, higher tax rates cause slower population growth and slower economic growth.”30

But even if we suspend our disbelief and assume that state tax policies are one of the most important driving forces behind interstate migration trends, there remains the issue that population growth and the aggregate economic measures ALME chooses to highlight do not show how a typical state's residents are faring in that state's economy. As economist Peter Fisher explains, “while population growth may go along with prosperity … it is not an end in itself. Also, growth in the economy, as measured by rising Gross State Product (GSP), is a crude measure of prosperity because GSP growth does not guarantee that the incomes of the average family will rise.”31

Because of this problem, ITEP chose to exactly duplicate ALME’s analysis using some of the most important and widely recognized measures of economic success—including median income growth, economic output per person, and unemployment rates.32 The finding of this comparison was that the states with the highest top income tax rates are performing just as well, if not better, than the states with no income tax at all. Updating those data to reflect the most recent decade of growth, the table on the following page shows that states without income taxes are still lagging behind those states that tax income—including those states with the highest income tax rates—when looking at both economic output per person and real median real median household income growth (or decline).33 Unemployment rates are nearly identical across all three groupings of states.

27 IRS data, accessed via the Tax Foundation at: http://interactive.taxfoundation.org/migration/
30 Ibid. pp. 3.
32 In a rebuttal to our work (Taxes Really Do Matter, pp. 4), Laffer and the Civitas Institute dubbed our decision to control for population growth through our choice of economic measures an inappropriate statistical trick meant to fool non-experts. We find it hard to take this criticism seriously given that “More Jobs, Bigger Paychecks” uses one of our chosen measures—median income growth—as evidence that North Carolina’s state’s economic performance has been subpar (see pp. 9-11 and 14). Moreover, Arthur Laffer’s Rich States, Poor States report makes another population-adjusted variable—per capita personal income—a centerpiece of its analysis.
33 The nine states not levying broad-based personal income taxes are Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming. The nine states with the highest personal income tax rates as identified by ALME include California, Hawaii, Maine, Maryland, New Jersey, New York, Ohio, Oregon, and Vermont. See ALME and OCPA. “Eliminating the State Income Tax in Oklahoma: An Economic Assessment.” November 2011. Available at: http://heartland.org/sites/default/files/OCPA_ALME_Income_Tax_FINAL.pdf
A Flawed Economic Theory

Why does the empirical evidence fail to support ALME’s assertions about the economic benefits of having a low income tax, or no income tax at all? In large part, the explanation can be found in four short, but hugely important words that Laffer and the Civitas Institute breezed over in an October 2012 report (emphasis added):

Surely if location A lowers its tax rates and location B raises its tax rates, other things being equal, businesses, capital and people will migrate from B to A, i.e. to where tax rates have fallen and from places where tax rates have risen.34

In the real world, of course, “other things” are never equal. Holding all else equal in the above example would require that location A provide the same public services as before with less money, and that location B simply burn its additional tax revenue on the trash heap, rather than using it to improve public services.

Cutting taxes requires difficult tradeoffs regarding which state services should no longer exist, or which other taxes should be raised to make up the difference. But as Laffer and Civitas explain in the same report cited above:

Of course, Americans want to live in states with good schools, clean parks, safe neighborhoods, good roads, prisons that keep the criminals off the streets and all the vital services that state and local governments provide.35

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Indeed, the factors listed above are not just things that Americans “want”—they are actually central to the economic success of any state. Eric Spiegel, President and CEO of Siemens Corp., recently explained his company’s decision to open a large plan in Charlotte, North Carolina by pointing out that:

*The reasons you bring a plant like this to the United States are higher-skilled labor, access to the world’s best research and development, and good, sound infrastructure. ... If you read all the studies about what it’s going to take for the U.S. to grow, it’s really about two things. Modernizing the infrastructure and retooling the education system. Those are the two big keys to creating more-productive, higher-paying jobs.*

Businesses in Oklahoma, after learning about plans to repeal their state’s income tax, made clear that they have a very similar view of the public services they need to continue operating efficiently:

*If our ability to educate and train employees for a 21st century economy is damaged through lack of funding, if we can’t maintain our roads and bridges, strong health care system, robust research and technology infrastructure, safe streets, etc., then the benefits of a reduction in the income tax rates may be limited.*

— Chris Benge, Tulsa Metro Chamber of Commerce Senior Vice President for Government Affairs

*I can’t sit here and say having no income tax, having low property tax, whatever, is going to make a big difference. We have to have a state that’s known for excellence.*

— Wes Stucky, Ardmore Chamber of Commerce President

Progressive income taxes have long played a central role in helping North Carolina, and most other state governments, provide the services that individuals and businesses alike need to prosper. Without the equivalent of an oil revenue bonanza on the immediate horizon—like the one Alaska stumbled upon in the 1970’s before becoming the only state to repeal its personal income tax—North Carolina would be entering into uncharted and treacherous territory if it adopts the ALME plan. Rather than simply taxing hundreds of millions of barrels of oil each year, for example, the ALME proposal would require expanding sales taxes in ways that more than a few North Carolinians might oppose—potentially including not just groceries and water, but items like prosthetic limbs, insulin, and meals for the elderly as well. Just as importantly, state services would likely have to be slashed, especially in the long-run as the expanded sales tax fails to grow at the same rate as the state’s progressive income tax. And the responsibility for funding what government programs do remain would be unavoidably shifted more heavily toward lower- and middle-income families.

**Conclusion**

Both the theory and economic analysis used by ALME and the Civitas Institute to support their claim that income tax repeal will lead to economic growth are flawed to the point of being entirely useless. The analysis fails to control for a large range of important non-tax factors that influence state economic growth, including a number of variables that Arthur Laffer and the Civitas Institute have admitted

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can influence growth. The ALME analysis also suffers from "reverse causality"—in some cases effectively blaming entire national recessions on state tax increases that were enacted to cope with the revenue losses caused by those recessions. The ALME analysis also completely ignores one-third of the tax increases contained in its plan (those associated with the business license fee and real estate conveyance tax), and does not adequately explain how it analyzed the other two-thirds (the sales tax increase). By contrast, a number of more careful, peer-reviewed academic studies have found no meaningful relationship between state income taxes and economic growth. In proposing a policy course that no state has ever taken—repealing the personal and corporate income taxes without a wealth of oil reserves to fall back on—ALME and the Civitas Institute have laid out an untested plan without any evidence that it will benefit the state's economy.