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THE ECONOMIC IMPACT OF FEDERAL SPENDING ON STATE ECONOMIC PERFORMANCE:

A North Carolina Perspective

By:
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THE ECONOMIC IMPACT OF FEDERAL SPENDING ON STATE ECONOMIC PERFORMANCE
A NORTH CAROLINA PERSPECTIVE

EXECUTIVE SUMMARY:

Federal government spending comes with costs; it should not be accepted as the free-lunch it is frequently considered to be. Every dollar the government spends must first be removed from the pocket of the private sector through higher taxes today, or higher borrowing today implying higher taxes tomorrow. Either way, government spending crowds-out private sector spending, diminishing the private economy's rate of growth.

Properly accounting for the impact from higher government expenditures illustrates the negative economic impacts high or increasing expenditures have. Total government expenditures relative to the private economy – known as the government expenditure wedge – appropriately measures the burden created by total government spending. The government expenditure wedge is determined by dividing government expenditures by net domestic business output.

The historic relationship between the growth in the private economy, the size of the government expenditure wedge, and the change in the government expenditure wedge illustrates that increases in government spending relative to the size of the private sector causes a reduction in the overall growth of the economy.

For example, between 1965 and 1983, the government expenditure wedge grew quickly, rising 16.6 percentage points to 49.0%. Growth in the private sector slowed to 2.5% per year.

On the other hand, between 1983 and 1988, growth in the private sector accelerated to 5.1% per year as the government expenditure wedge fell 3.3 points back down to 45.7%.

Consequently, the costs of accepting federal dollars from the American Recovery and Reinvestment Act of 2009 will be a long-term drain on the private sector. The ARRA Act of 2009 will increase the government expenditure wedge from 49.2% to 52.4% for an overall 3.3% increase. This increase will reduce the growth in real net business output by 2.5% which translates to a reduction of 1.7 million jobs nationally and between 51.1 thousand and 66.9 thousand *additional* jobs lost in North Carolina during the time that ARRA funds are being spent.

Allotments for unemployment insurance (UI) from the American Recovery and Reinvestment Act of 2009 (ARRA) are particularly noteworthy. UI expenditures increase during a recession which often drains state trust funds. Historically, the federal government steps in to cover the increased costs but with strings that require expanded UI benefits. Once the temporary federal money has run dry, states have historically been forced to ramp up their collections in order to maintain the additional support previously provided by the federal government.

THE ECONOMIC IMPACT OF FEDERAL SPENDING ON STATE ECONOMIC PERFORMANCE

One of the cornerstones of good economic analysis is the realization that "there is no such thing as a free lunch." Yet when it comes to federal money for the states, this fundamental truth is generally lost. Most people equate federal dollars as manna from heaven – a free meal that should be enjoyed for as long, and often, as possible. The reaction to the governors that questioned the efficacy of the recent stimulus package is simply the latest example of this mistaken belief.

The United States is comprised of 50 states, the District of Columbia, and a few territories. This obvious statement is somehow forgotten with respect to the economic and fiscal effects from federal government spending. All federal government tax revenues are raised by levying taxes on people (or entities) that are located in one of the states or the District of Columbia (a subset of the country). Because the vast majority of the federal budget is spent domestically, the vast majority of government spending is spent in a part (or subset) of the country. By definition then, federal government fiscal policy is taking revenues from one state and spending it in the same, or a different, state.

No magic resources are created by the federal government that did not exist in one state prior to the federal government's fiscal policy. In order for one state to receive a net positive amount of resources from the federal government, accounting for the federal tax revenues that were levied in that state, the federal government must take a net negative amount of resources away from another state. For the country as a whole, the federal government cannot create a net injection of resources.

What the federal government can do is change the net economic incentives across each state or change the net benefits (or value) created by the federal tax dollars. A careful examination of federal spending illustrates that federal tax and spending policy is creating significant adverse impacts on state economic efficiency and despite the addition of seemingly "free money," is actually creating a net negative for the health of state budgets across the country. The $787 billion federal government spending plan—the inaptly-named "economic stimulus"—is de-stimulating the economy and will actually worsen the fiscal health of state budgets across the nation.

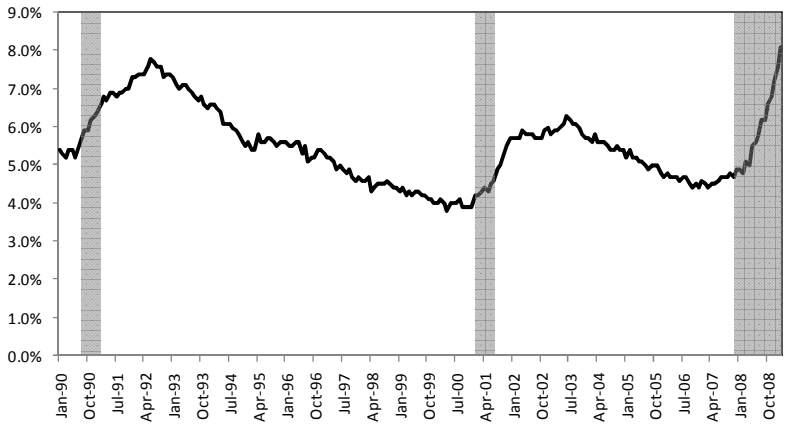
The negative consequences from the federal stimulus bill have been amplified due to continued fiscal irresponsibility. The federal government's budget deficit will now be over 13% in the current fiscal year – such an extraordinary deficit burden is unprecedented in the U.S. economy since World War II. The higher federal government deficits will continue to crowd out private sector investment; put upward pressure on interest rates; and due to the accommodating actions of the Federal Reserve, put upward pressure on inflation. All of these negative impacts will be in addition to the negative impacts created by the $787 billion stimulus bill.

Federal Help Comes with a Cost: State Unemployment Insurance

Federal aid to states to offset the rising unemployment insurance costs illustrates the costs of federal money. The Unemployment Insurance program (UI) is generally funded by state tax levies. During good times, state revenues far exceed UI costs, and state revenue funds increase. Recessions reverse the arithmetic. During bad economic times, the unemployment rates surge upward, and state UI costs exceed available revenues as states extend their unemployment compensation beyond the amounts they contributed to the Federal Unemployment Trust Fund.

This reversal lasts well beyond the end of official recessions. Figure 1 tracks the unemployment rate from January 1990 through February 2009. The gray shaded areas in Figure 1 represents recessions. As the experience of the previous 2 recessions show, the unemployment rate peaks well after the official end of the recession.

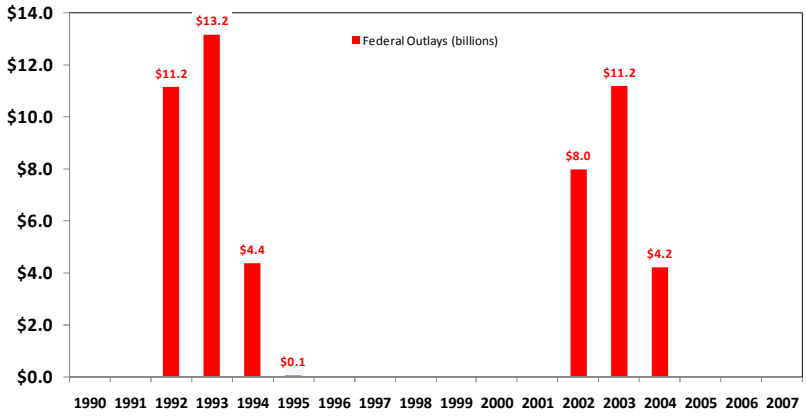
FIGURE 1
MONTHLY NATIONAL UNEMPLOYMENT RATE
JANUARY 1990 – FEBRUARY 2009



Source: U.S. Bureau of Labor Statistics

The federal government usually steps in to help with extended unemployment insurance benefits funding beyond the 26 weeks covered by states during normal years. The federal government and each individual state split the costs of these extensions increasing the federal government's responsibilities. Although the states are also required to pay some of the additional benefits, many states are not able to meet these additional costs. Historically, this situation has been addressed on a case-by-case basis. The typical extended benefits legislation has a set expiration date and, like the American Recovery and Reinvestment Act of 2009 (ARRA), increases federal control over program eligibility and benefits. Figure 2 illustrates the surge of federal expenditures during times of high unemployment followed by minimal expenditures during times of strong economic growth.

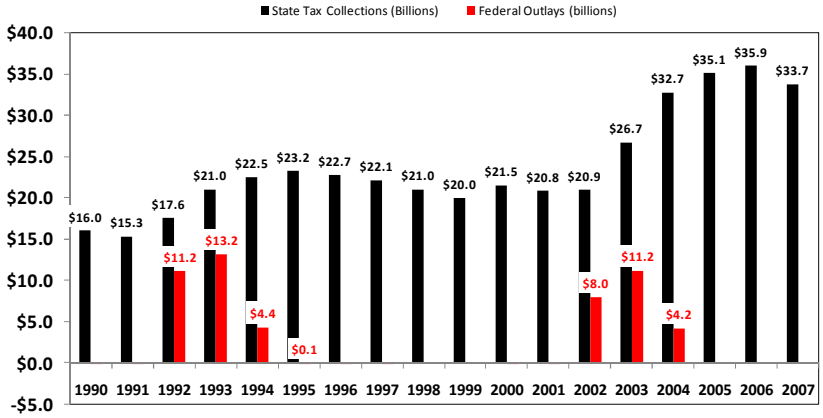
FIGURE 2
FEDERAL GOVERNMENT EXTENDED AND SUPPLEMENTAL BENEFIT OUTLAYS
ALL STATES
1990 - 2007



Source: U.S. Department of Labor

Because the federal aid in 1991 and 2001 came with strings attached – much like the federal aid offered in 2009 – the necessary state tax collections to support the UI program increases substantially following the surge in federal expenditures, as seen in Figure 3.

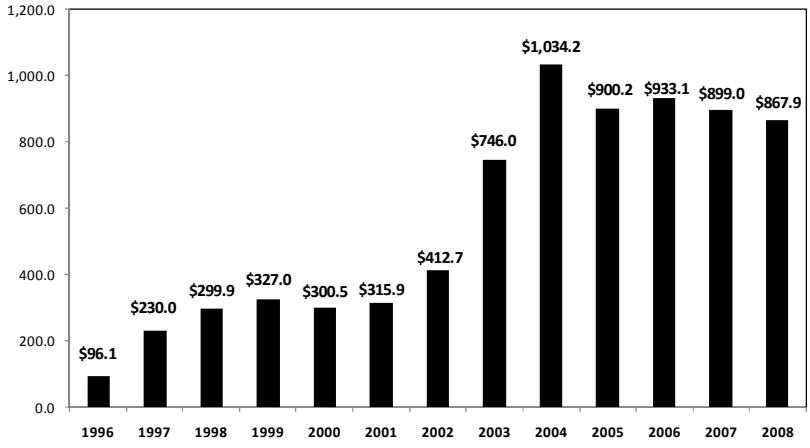
FIGURE 3
FEDERAL GOVERNMENT EXTENDED AND SUPPLEMENTAL BENEFIT OUTLAYS COMPARED TO STATE UNEMPLOYMENT TAX CONTRIBUTION COLLECTIONS
ALL STATES
1990 - 2007



Source: U.S. Department of Labor

Historically, federal expenditures have propped up state unemployment insurance funds during economic downturns; however, the costs have been substantially higher tax collections during the subsequent recovery for all 50 states as a whole. Changes in tax collections in North Carolina do not exhibit as clean a pattern as exhibited by the national data. While the total tax collections did not exhibit a sustained increase following the 1990 recession, there were significant increases in tax collections that followed the years of the 2002 – 2004 federal revenue surges, see Figure 4. Such surges are consistent with the need to build an adequate revenue reserve to pay for the higher costs that were mandated by the federal government in return for the extra revenues during the recessions.

FIGURE 4
STATE UNEMPLOYMENT TAX CONTRIBUTION COLLECTIONS
NORTH CAROLINA
1996 – 2008
(IN MILLIONS $)



Source: U.S. Department of Labor

Higher Government Expenditures De-Stimulate the Economy

Increasing federal spending does not stimulate the economy. Just the opposite: higher government spending crowds out the private economy, diminishing its rate of growth. The driving force of the economy is the incentive to engage in market activities. In both the long and short run, individuals and groups of individuals allocate resources according to the after-tax rate of return. If market activities are profitable, the economy will concentrate on ever-increasing market successes. When the profitability of market activities is reduced, market activity diminishes and welfare enhancing activities cease.

Higher government expenditures must be financed through higher taxes today or higher borrowing today that will necessitate higher taxes tomorrow. Every dollar that the government spends must be, by definition, removed from somewhere else in the economy – the government, Peter, can only pay Paul by taking the money away from Mary. Any stimulative impact from Paul's spending will be completely offset from an equal amount of reduced spending caused by the money being taken away from Mary.

This is not the end of the story, however. Mary's after-tax rate of return declines when the government takes money away from her. The lower after-tax rate of return reduces Mary's incentives to work, save, and invest, which leads to fewer private sector market activities and lower overall economic growth. Consequently, increased government expenditures as a share of the economy will diminish overall economic growth.

The ARRA of 2009 is a significant increase in federal government expenditures at a time when the private sector can least afford to pay for the higher government burden. As a result, the purported "stimulus" plan passed by Congress and signed by President Barack Obama will actually worsen the economy's performance.

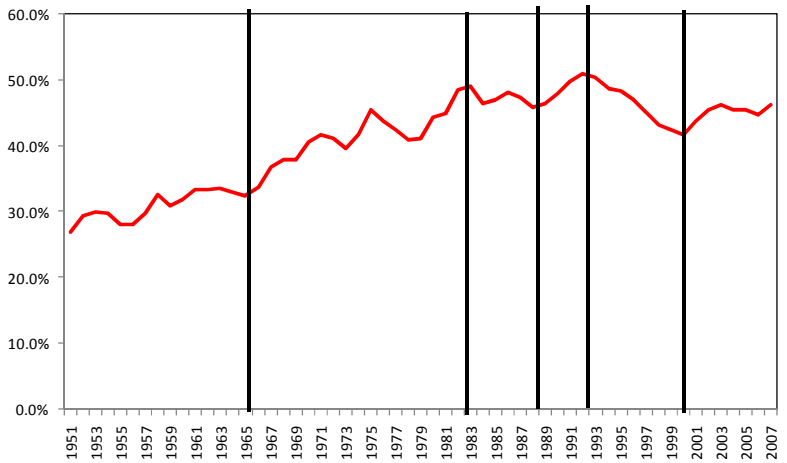
Capturing the de-stimulative impact of federal spending requires accurate measurement of the economy. Typically, the health of the economy is measured by the growth in Gross Domestic Product (GDP). GDP is measured based on how much money is spent in the economy by consumers, investors and the government – government expenditures typically being around 20% of total GDP. Because GDP is comprised of government expenditures, in part, it is not appropriate to judge the economic efficacy from an increase in government expenditures by watching changes in GDP. Additionally, if it is the vibrancy of the private sector that we wish to measure, another common measure – personal income – is also inappropriate. Personal income, which sounds like income from productive activities, also includes the value of government transfer payments. While not discounting the importance of "the social safety net," transfers from the government dilutes the important question: the value of the private sector.

To assess the value of the private sector we examine the value of the production of all businesses in the domestic economy – or net domestic business output adjusted for inflation. This measure directly tracks the growth rate in the private economy. To assess the impact of government expenditures, we examine total federal, state and local government expenditures relative to net domestic business output – the government expenditure wedge.

A wedge occurs anytime there is a separation of effort and reward. It is intrinsically an economic variable that operates at the margin where incentives come into play and the decisions are made to, say, allocate capital between one project or industry and another. Government spending is a proxy for the total burden of government on the private sector. Relative government expenditures are important because a wealthier private sector can afford a larger dollar level of government expenditures than a poorer private sector. Figure 5 tracks the growth in the government expenditure wedge between 1951 and 2007 (the latest full data set available). As of 2007, total government expenditures were $4.4 trillion. Net domestic business output (corporate and non-corporate income adjusted for depreciation) for 2007 was $9.5 trillion. The resulting government expenditure wedge for 2007 was 46.1%.

The vertical black lines in Figure 5 represent the years where changes in the path of the government expenditure wedge are evident. For instance, total government expenditures were relatively flat to slightly growing between 1951 and 1965. Beginning in 1966, there is a change in the rate of expenditure growth that continued until 1983. The growth in government expenditures then slowed until 1989. A renewed, but short-lived, pick-up in government expenditures occurred between 1989 and 1993. The trend toward lower government expenditures then resumed until 2001, following which there has been a renewed increase in total government expenditures.

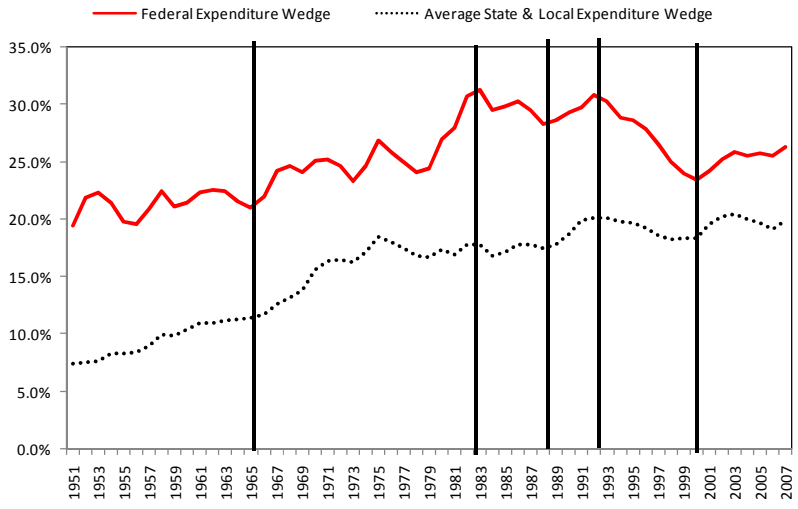
FIGURE 5
TOTAL FEDERAL, STATE AND LOCAL GOVERNMENT EXPENDITURE WEDGE
1951 - 2007



Source: ALME Calculations based on Bureau of Economic Analysis Data

Figure 6 breaks down the government expenditure wedge between its federal and state & local components. While the overall trends between the two tax wedges are generally similar, there are a few noteworthy differences. Prior to 1966, the state and local expenditure wedge grew 52%, compared to a relatively flat 8% growth in the federal expenditure wedge. The pattern of expenditure growth then converged until 1989. During the uptick in growth between the 1989 and 1993, state and local expenditures grew faster (+12.9%) than federal expenditures (+5.8%).

FIGURE 6
FEDERAL GOVERNMENT EXPENDITURE WEDGE AND
STATE AND LOCAL GOVERNMENT EXPENDITURE WEDGE
1951 - 2007



Source: ALME Calculations based on Bureau of Economic Analysis Data

Table 1 illustrates the negative impact that a high and/or growing government expenditure wedge has on private sector activity, as well as the positive impact of a lower and/or declining expenditure wedge. Taking each period separately:

- Between 1950 and 1965, the government expenditure wedge was relatively low (32.4%) and grew slightly (+5.5 percentage points). Private sector expansion was a robust 3.6% per year during this period.
- Between 1965 and 1983, the government expenditure wedge grew quickly, rising 16.6 percentage points to 49.0%. Growth in the private sector slowed to 2.5% per year.
- Between 1983 and 1988, growth in the private sector accelerated to 5.1% per year as the government expenditure wedge fell 3.3 points back down to 45.7%.
- The brief reversal in the government expenditure wedge between 1988 and 1992 led to a 5.2 percentage point rise in the wedge to 50.9%. Growth in the private sector economy slowed again to 1.0% per year.

- Between 1992 and 2000, the government expenditure wedge fell 9.2 percentage points to 41.7%. Growth in the private sector economy accelerated again to 4.5% per year.
- Finally, between 2000 and 2007, the growth in the government expenditure wedge started growing again (by 4.5 percentage points to 46.1%) and the growth rate in the private sector cooled to 2.0%.

TABLE 1
NEGATIVE RELATIONSHIP BETWEEN
EXPENDITURE WEDGE AND PRIVATE SECTOR GROWTH
1950 - 2007

	% Change Net Business Output (CAGR)	Wedge at end of period	Change Wedge (peak to trough, trough to peak)
1950 - 1965	3.6%	32.4%	5.5%
1965 - 1983	2.5%	49.0%	16.6%
1983 - 1988	5.1%	45.7%	-3.3%
1988 - 1992	1.0%	50.9%	5.2%
1992 - 2000	4.5%	41.7%	-9.2%
2000 - 2007	2.0%	46.1%	4.5%

Source: ALME Calculations based on Bureau of Economic Analysis Data

The Negative Economic Impact from the American Recovery and Reinvestment Act of 2009

Table 1 illustrates the strong and negative relationship between the size and growth of the government expenditure wedge, and growth in the private sector economy. The data in this table illustrate that the growth in the expenditure wedge and growth in the growth rate in the private economy move in opposite directions. In other words, growth in government crowds out growth in the private sector. Increases in government expenditures as a share of domestic output causes an increase in the expenditure wedge and an overall decrease in private sector growth. Table 2 presents the statistical relationship between net business output and the government expenditure wedge.

TABLE 2
REGRESSION RESULTS
DEPENDENT VARIABLE: CHANGE NET BUSINESS OUTPUT[1]

	Coefficients	*Standard Error*	*t Stat*	*F State*	*Adj. R-Sq.*
Constant	0.0701	0.0135	5.257	65.762	0.698
Expenditure Wedge	- 0.0820	0.0325	- 2.524		
Change Exp. Wedge	- 1.6228	0.1440	- 11.273		

Based on the statistical relationship between these three factors, the negative impact from ARRA can be estimated. Due to all of the increased government expenditures prior to ARRA, the government expenditure wedge increased from 46.1% in 2007 to an estimated 49.2% currently.[2] The expenditure components within the ARRA equal approximately $575 billion over 7 years. The present value of these expenditures is approximately $540 billion. Such an expenditure increase raises the government expenditure wedge to 52.4%, or a 3.3 percentage point increase in the government expenditure wedge that will reduce the growth in real net business output by 2.5%, see Figures 7 and 8.

[1] The government expenditure wedge is defined as government expenditures divided by net domestic business output. Because the growth of government expenditures is dependent on the growth in the private economy, there is no a priori relationship between changes in net domestic business output and changes in the government expenditure wedge.
[2] The current government expenditure wedge is estimated based on total government expenditures for 2008 as reported by the Bureau of Economic Analysis and ALME estimates of the Net Private Domestic Output for 2008.

FIGURE 7
CURRENT AND ESTIMATED GOVERNMENT EXPENDITURE WEDGE FOLLOWING ARRA OF 2009

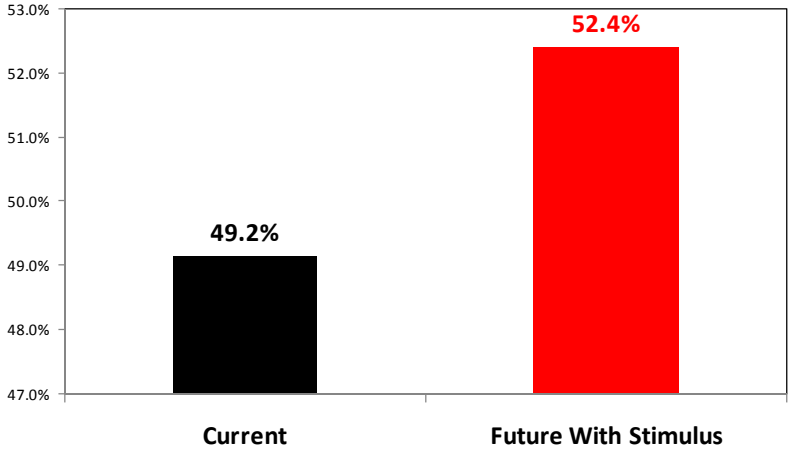
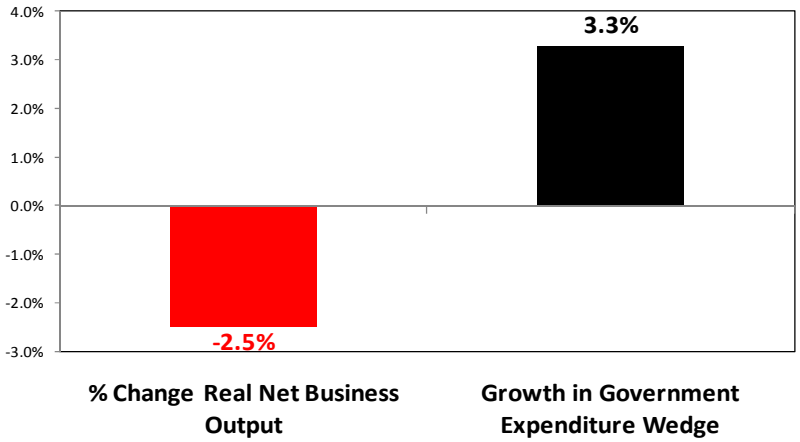


FIGURE 8
ESTIMATED ECONOMIC IMPACT FROM ARRA OF 2009



Source: ALME Calculations

The Impact of ARRA 2009 on North Carolina

The ARRA bill, which was enacted to improve the US economy, will inevitably cause more harm than good by inhibiting private sector growth and increasing unemployment. The ARRA of 2009 increases the total government expenditure wedge thereby creating a net negative for the economy.

For the U.S. overall, an additional 1.7 million jobs could be lost as a direct result of the higher spending in the ARRA bill. The increased job losses and decreased net business output will reduce tax revenue growth and increase government income support expenditures for all 50 states and the federal government. Due to these feedback effects, ARRA of 2009 will de-stimulate the economy, reduce tax receipts, and increase government expenditures.

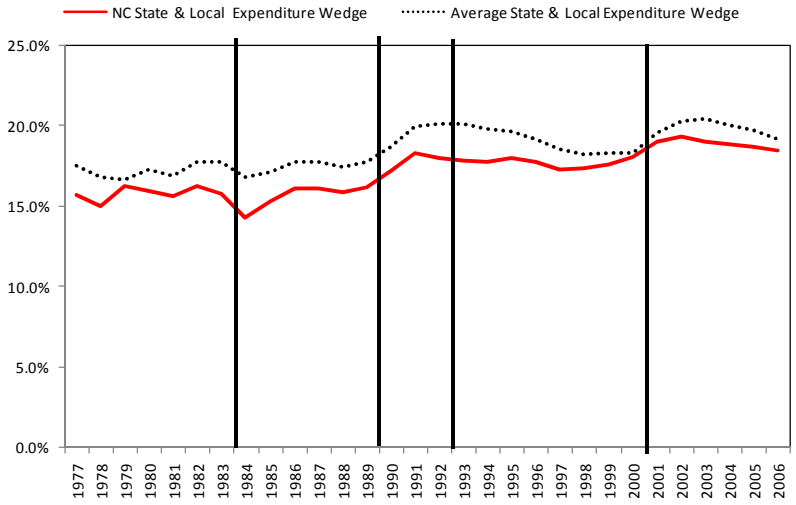
In North Carolina, between 51.1 thousand and 66.9 thousand job losses can be expected to occur during the time that ARRA funds are being spent. Figures 9 and 10 illustrates that North Carolina currently imposes a lower government expenditure wedge than most states – we estimate the current government expenditure wedge has risen to 47.8% in North Carolina by 2009 prior to the ARRA of 2009. The impact of the ARRA will raise this wedge to 51.8% which is still below the national average of 52.4%, see Figure 11.

The ultimate impact from the ARRA of 2009 on North Carolina will depend upon how the state manages the increased federal government money. The previous section established the deleterious impact that a high or growing government expenditure wedge has on the private economy's growth rate. Spending the money on recurring programs will necessitate North Carolina to increase taxes in the future in order to maintain these programs once the federal government funds run out, locking-in the higher expenditure wedge.

Maintaining the higher government expenditure wedge will reduce the annual average growth rate in the private sector by 0.33% per year. Over a 10 year period, North Carolina's economy will be up to 3.33% smaller than it would have been had the extra spending been focused on one-time projects only – rejecting all funds that would ultimate lead to a permanent increase in the government spending burden. In terms of employment, this equates to 67.9 thousand jobs that will not be created due to the additional government expenditure burden being maintained.

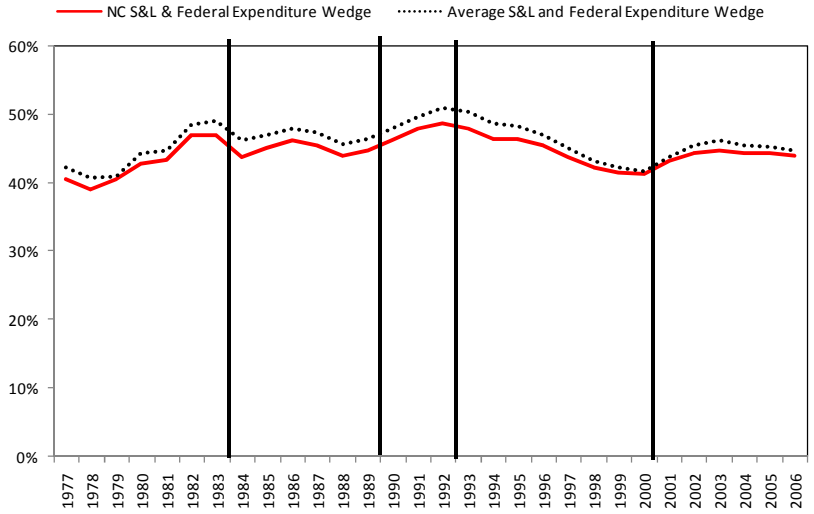
North Carolina receives a larger amount of money from the federal government than it pays to the federal government. According to the Tax Foundation, North Carolina received $1.08 for every $1.00 it paid to the federal government in 2005 – the latest data available.[3]

FIGURE 9
NORTH CAROLINA STATE AND LOCAL GOVERNMENT EXPENDITURE WEDGE
COMPARED TO TOTAL STATE AND LOCAL GOVERNMENT EXPENDITURE WEDGE
1977 - 2006



Source: ALME Calculations based on U.S Census and Bureau of Economic Analysis Data

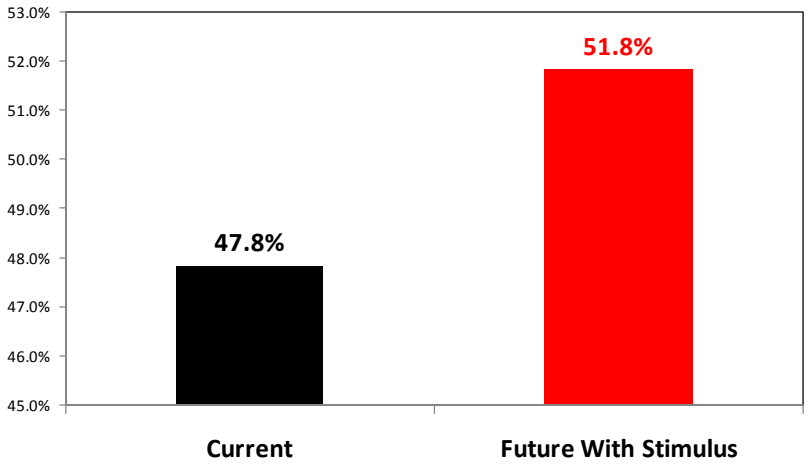
FIGURE 10
NORTH CAROLINA FEDERAL, STATE AND LOCAL GOVERNMENT EXPENDITURE WEDGE
COMPARED TO TOTAL FEDERAL, STATE AND LOCAL GOVERNMENT EXPENDITURE WEDGE
1977 - 2006



Source: ALME Calculations based on U.S Census and Bureau of Economic Analysis Data

[3] Source: Tax Foundation Special Report No. 158, "Federal Tax Burdens and Spending by State," and U.S. Census Bureau's Consolidated Federal Funds Report for 2005.

FIGURE 11
CURRENT AND ESTIMATED GOVERNMENT EXPENDITURE WEDGE FOLLOWING ARRA OF 2009
NORTH CAROLINA



Conclusion

When government expenditures grow beyond the private sector's ability to pay for it, economic growth suffers. Put simply, growth in government crowds out growth in the private sector. Nationwide, the burden from total federal, state, and local government expenditures have risen by more than five percentage points within the past two years – an extraordinarily high growth rate. The increased government expenditures will reduce private sector growth and increase overall unemployment throughout the United States.

North Carolina will not be insulated from these impacts. Due to the unavoidable negative impact, states need to carefully scrutinize all federal programs to ensure that the additional expenditures do not create even more negative effects on their state's economy. For instance, the history of federal unemployment insurance aid leading to even greater government expenditures in the future warrants particular caution before accepting these additional funds.

Biographies of Key Personnel

Donna Arduin
Ms. Arduin, Partner, ALME, served as California Governor Arnold Schwarzenegger's Director of Finance from November 2003 until October 2004, where she was the Governor's chief fiscal advisor and was a member of over 70 boards and authorities. Prior to her appointment as Director, Schwarzenegger asked Arduin to undertake an outside, independent audit of California government and state finances.

Prior to working for Governor Schwarzenegger, Arduin served governors from three additional states, including Florida, New York, and Michigan. Donna was Governor Jeb Bush's Director of the Florida Office of Policy and Budget for five years, where she managed the formulation of the governor's policy and fiscal recommendations, created the nation's first interactive "e-budget," and implemented performance-based budgeting and long-range planning. Additionally, Donna served Governor George Pataki throughout his first term as First Deputy Budget Director and led his successful efforts to reduce and simplify property taxes in New York and reduce the size of state government. Donna also served Governor John Engler for three years during his first term, as Chief Deputy Director of the Michigan Department of Management and Budget, as well as the executive director of his reinventing government commission and his appointee to the Michigan Municipal Bond Board of Trustees.

Arduin offers extensive experience in bringing government spending under control through long-term policy planning and fiscally conservative budgeting. Her Governors have consistently received high marks on the Cato Institute's fiscal report cards during her tenure with their administrations. Ms. Arduin also sat on Governor Bush's Council of Economic Advisors and his Property Tax Reform Committee.

A graduate of Duke University, Arduin graduated magna cum laude with honors in economics and public policy. She worked as an analyst in New York and Tokyo in the private financial markets for Morgan Stanley and Long-Term Credit Bank of Japan.

Arthur B. Laffer, Ph.D
Dr. Laffer's economic acumen and influence in triggering a world-wide tax-cutting movement in the 1980s have earned him the distinction in many publications as The Father of Supply-Side Economics. One of his earliest successes in shaping public policy was his involvement in Proposition 13, the groundbreaking California initiative that drastically cut property taxes in the state in 1978.
Years of experience and success in advising on a governmental level have distinguished Dr. Laffer in the business community as well. He has sat on the board of directors of several public companies, which include: Petco Animal Supplies Inc. (PETC), Nicholas-Applegate Growth Equity Fund (NAPGX), MPS Group Inc. (MPS), Oxigene Inc. (OXGN) and Provide Commerce (PRVD). He has also sat on the board of directors or board of advisors of a number of private companies including: HNTB, Affinia Hospitality, Retirement Capital Group, Vizional Technologies, The Mayfair Group, ValuBond, U.S. Script and Castle Creek Capital.

Dr. Laffer is a founding member of the Congressional Policy Advisory Board, a select group of advisors who assist in shaping legislative policies for the 105th, 106th and 107th United States Congress.

Dr. Laffer was a member of President Reagan's Economic Policy Advisory Board for both of his two terms (1981-1989). He was a member of the Executive Committee of the Reagan/Bush Finance Committee in 1984 and was a founding member of the Reagan Executive Advisory Committee for the presidential race of 1980.

He was formerly the Distinguished University Professor at Pepperdine University and a member of the Pepperdine Board of Directors. He also held the status as the Charles B. Thornton Professor of Business Economics at the University of Southern California from 1976 to 1984. He was an Associate Professor of Business Economics at the University of Chicago from 1970 to 1976 and a member of the Chicago faculty from 1967 through 1976.

During the years 1972 to 1977, Dr. Laffer was a consultant to Secretary of the Treasury William Simon, Secretary of Defense Don Rumsfeld and Secretary of the Treasury George Shultz. He was the first to hold the title of Chief Economist at the Office of Management and Budget (OMB) under Mr. Shultz from October 1970 to July 1972.

Dr. Laffer has been widely acknowledged for his economic achievements. Recently he was noted in Time Magazine s March 29, 1999, cover story The Century's Greatest Minds for inventing the Laffer Curve, which it deemed one of a few of the advances that powered this extraordinary century . He was listed in A Dozen Who Shaped the 80s, in the Los Angeles Times on Jan. 1, 1990, and in A Gallery of the Greatest People Who Influenced Our Daily Business, in the Wall Street Journal on June 23, 1989. His creation of the Laffer Curve was deemed a memorable event in financial history by the Institutional Investor in its July 1992 Silver Anniversary issue, The Heroes, Villains, Triumphs, Failures and Other Memorable Events.

The awards that Dr. Laffer has received for his economic work include: two Graham and Dodd Awards from the Financial Analyst Federation for outstanding feature articles published in the Financial Analysts Journal; the Distinguished Service Award by the National Association of Investment Clubs; the Adam Smith Award for his insights and contributions to the Wealth of Nations; and the Daniel Webster Award for public speaking by the International Platform Association. Dr. Laffer also earned the Father of the Year award from the West Coast Father s Day Committee in 1983.

Dr. Laffer received a B.A. in economics from Yale University in 1963. He received a MBA and a Ph.D. in economics from Stanford University in 1965 and 1972 respectively.

Wayne H. Winegarden, Ph.D.

Dr. Winegarden manages Arduin Laffer & Moore's policy studies and analyses; advises clients on the business implications from changes in government policies and economic trends including regulatory, tax, and fiscal policies. Wayne's economic trends research details the impact on clients and industries from current macroeconomic, market and industry trends. Additionally, Dr. Winegarden performs economic impact analysis for proposed investment projects and legislative/regulatory proposals. Dr. Winegarden presents his research findings to clients, conferences, and in the media including Bloomberg News and CNN-fn.

Previously, Dr. Winegarden worked as an economist in Hong Kong and New York City for Altria Companies Inc. Wayne's responsibilities included forecasting the economic trends for East-Asian Economies; creating economic, fiscal, and pricing models that were leveraged as part of the company's 5-year planning process; and, managing the company's tax and budget analyses and government affairs argumentation.

Prior thereto, Dr. Winegarden worked for policy and trade associations in Washington D.C. As an economist with the National Association of Federal Credit Unions, Wayne analyzed the economic impact from proposed legislation on the financial industry and advised association members on the implications from domestic economic trends. Dr. Winegarden was also an Earhart Fellow/Policy Analyst with Citizens for a Sound Economy where he authored papers and editorials on timely tax, budget, and regulatory issues.

Dr. Winegarden is the author of several policy and academic papers. He has taught economics at Marymount University, and is currently a columnist for Townhall.com. Dr. Winegarden has a Ph.D. in economics from George Mason University.

Ian McDonough

Currently, Ian McDonough renders services for a wide array of clientele. Projects that Ian has worked on have included the creation of economics based asset allocation models for environmental commodities and traditional assets, the construction of valuation models for new, patent pending investment vehicles, the execution of ad hoc analyses on various model portfolios in order to extrapolate viable investment strategies and the design and implementation of economic and financial databases. Ian has rendered services for CE2 Capital Partners, TGG Capital, Laffer Associates, A&S Capital Management and various other private individuals.

Prior to his current position, Ian was employed by Laffer Associates where he was directly involved in the investment process including the creation, testing and implementation of quantitative asset allocation models and economic forecasts. Additionally, Ian was responsible for assisting in a wide array of the firm's economic research, including the authoring and editing of weekly research publications as well as conducting analysis on various outside research projects.

Before joining Laffer Associates, Ian worked as a Graduate Research Assistant at Utah State University and was funded by the Utah Division of Water Resources to conduct an econometric analysis on the "Effectiveness of Fish License Marketing in Utah."

Ian has received a B.S. in Information Systems with an emphasis is Management Information Systems and an M.S. in Economics; both from Utah State University.