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WHAT HAPPENED TO THE JOBS? A Tale of Two Economic Cycles

By John Quinterno, Research Associate

Executive Summary

- Since 2000, North Carolina has not created enough jobs to keep pace with the growth of the workforce. As a result, proportionally fewer prime-age adults (ages 20-64) are employed now than in 1990.
- This pattern is the opposite of the one that prevailed during the 1990s, when job growth consistently outpaced workforce growth. If the 1990s trend had continued, holding all else equal, there currently would be up to 487,000 more positions on North Carolina payrolls.
- Sluggish job growth has contributed to the economic hardships facing the state's households. The failure to create adequate numbers of jobs has resulted in relatively high levels of unemployment and underemployment, which have held down wages and incomes. The result: stagnant or declining living standards for working households.
- The 2008 recession has exacerbated these difficulties. Between January and September, job creation in North Carolina essentially ground to a halt, and unemployment climbed to a level reached on only one other occasion since 1990.
- Even if the recession proves brief, North Carolina's labor market likely will limp through 2012 and perhaps even longer if the rebound is a "jobless" recovery marked by relatively high unemployment and stagnant wages. The recovery following the 2001 recession was a jobless one in which few households experienced few tangible improvements in their well-being.
- Both federal and state actions are needed to *recover* from the downturn, *renew* broadly shared economic growth and *rebuild* pathways to opportunity. The federal government must take the lead and make the large-scale investments needed to aid struggling households and stimulate the larger economy. Meanwhile, state leaders must avoid making the situation worse must by attempting to "cut" their way to a balanced budget.

Overview

Since 2000, job growth in North Carolina has failed to keep pace with the growth in the state's prime-age workforce (ages 20-64). This pattern is the opposite of the one that prevailed in the 1990s, when job growth consistently exceeded workforce growth. Because most households derive almost all of their incomes from paid work, the weak labor market has exacted a heavy toll from working families – a toll that likely will rise now that the economy has fallen into a recession. Even if the recession proves short, the speed and strength of the recovery will hinge upon the labor market's ability to generate adequate numbers of jobs. If the rebound is a "jobless" recovery similar to the one that followed the 2001 recession, households will struggle with unemployment, underemployment and wage stagnation well into the future.

North Carolina: Growing, But Not Like You Think

It has become almost cliché to describe North Carolina as having undergone a profound social and economic transformation - a transformation marked by robust population and job growth. Between 1980 and 2000, the total population expanded by 27 percent, rising to 8.0 million from 5.9 million. During that time, the number of positions on the payrolls of non-farm enterprises jumped by 47 percent, increasing to 4.8 million from 2.9 million. Growth was especially pronounced during the 1990s, when the total population swelled by a fifth and payrolls expanded by a quarter. Such developments left North Carolina not just more populous, but also more prosperous. Just consider: per-capita personal income - a key yardstick of economic well-being - rose by 19 percent in inflation-adjusted terms over the 1990s.

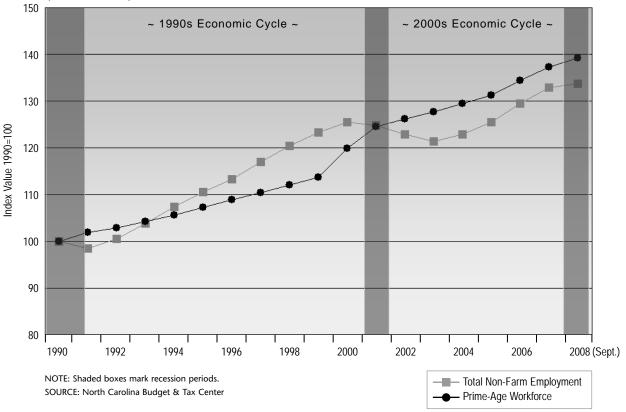
During the 2000s, North Carolina has struggled to address a myriad of challenges - transportation, environmental preservation and public finance, to name but a few - linked to the explosive growth of the 1990s. Yet in formulating responses, public leaders have tended to view the challenges through the lens of the 1990s, a time when North Carolina was adding residents and jobs at a rapid clip. That state, however, no longer exists. While the population has grown by 13.8 percent since 2000, job growth, particularly private-sector job growth, has been sluggish at best. This means, somewhat counter-intuitively, that one of the key growth challenges facing North Carolina is how to spark job growth.

A Tale of Two Economic Cycles: the 1990s and the 2000s

The weakening of North Carolina's labor market becomes clear when the 1990s and 2000s are compared. Each of these periods represents a complete economic cycle (measured from recession year to recession year). The 1990s began with a short recession followed by a boom that culminated in 2000. Meanwhile, the 2000s began with a brief recession in 2001 that gave way to an expansion stretching through 2007.³ In December 2007 the economy slipped into a new recession.

Figure 1 charts the changes in the number of non-farm payroll jobs and prime-age workers (ages 20-64) in North Carolina between 1990 and 2008 (through September).⁴ Non-farm payroll employment measures the number of *jobs* that exist at a point in time by tracking the number of wage and salary positions on the payrolls of business establishments. The count captures most jobs in North Carolina, though business proprietors, self-employed workers, farm workers, domestic employees and military personnel are excluded. Meanwhile, the prime-age workforce represents the number of *persons* between the ages of 20 and 64. Although this population omits some people of working age, it accounts for the vast majority of the workforce including the

NON-FARM JOB GROWTH & GROWTH IN PRIME-AGE WORKFORCE (AGES 20-64), NORTH CAROLINA, 1990-2008



segment most apt to be - or want to be - employed. Data come from the Current Employment Statistics program of the U.S. Bureau of Labor Statistics and U.S. Census Bureau estimates. All values are indexed to their 1990 levels.

Viewed in its entirety, the period 1990-2008 was marked by strong workforce and job growth.⁵ Non-farm employment rose by 33.7 percent over that time, climbing to 4.2 million from 3.1 million positions. Meanwhile, the prime-age workforce grew by 39.2 percent, increasing to 5.6 million from 3.9 million individuals. On an annualized basis, North Carolina added jobs at a rate of 1.6 percent per year and workers at a rate of 1.9 percent per year. This trend, however, masks important differences that become apparent only when the patterns are broken into the two distinct economic cycles that occurred between 1990 and 2008.

The 1990s: Gaining Workers, Creating Jobs

North Carolina experienced robust workforce and job growth during the 1990s economic cycle. The decade opened with a recession that lasted from the third quarter of 1990 through the first quarter of 1991. Though the recession itself was brief, the recovery was a "jobless" one, meaning that the labor market continued to struggle well after the recession's end. Payrolls did not begin expanding until 1992, but then proceeded to add jobs every year through 2000. The prime-age workforce also increased during the 1990s. Even though both the number of jobs and workers increased, the rate of job growth consistently outpaced the rate of workforce growth.

More specifically, the payrolls of non-farm employers netted 794,000 positions during the 1990s, a 25.4-percent increase. Over that same period, the prime-age workforce posted a net gain of 795,000 individuals, representing a 19.9-percent rise. The state consequently ended the decade with 3.9 million jobs and 4.8 million prime-age workers. On an annualized basis, North Carolina added jobs at a rate of 2.2 percent per year and workers at a rate of 2.2 percent per year.

The 2000s: Gaining Workers, Shedding Jobs

The 2000s economic cycle began with a brief recession that lasted from the first through the fourth quarters of 2001.8 The effects of this downturn, however, lingered long after its end. North Carolina employers continued to shed jobs through 2003, and even when job creation resumed, it took until 2005 before the state had roughly the same number of jobs as existed in the peak year of 2000. In other words, North Carolina's labor market did not return to even until four years into the expansion. This was followed by two years of sluggish growth that ended in 2008.

The 2000s pattern was the inverse of the 1990s one. During the 1990s, the state added both jobs and workers with the rate of job growth regularly exceeding the rate of workforce growth. This decade, however, the rate of workforce growth has surpassed the rate of job growth. Between 2001 and 2007, North Carolina netted 771,000 prime-age workers, a 16.1 percent increase, while payroll employment grew by 258,000 positions or 6.6 percent. Put differently, North Carolina added jobs at an annual rate of 1 percent and workers at an annual rate of 1.6 percent.

The differences between the 1990s and 2000s cycles are most pronounced in the private sector, which accounts for about 84 percent of the state's non-farm jobs. During the 1990s, North Carolina added private-sector jobs at a rate of 2.2 percent per year, resulting in a net addition of 663,000 payroll positions. During the 2000s, however, private-sector payrolls grew at a rate of 0.9 percent per year. The result was a net gain of just 177,000 positions.

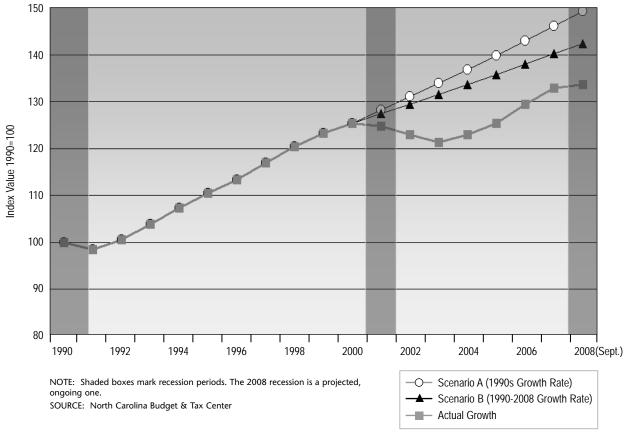
Giving Away Growth: Reversal in Trend Results in Fewer Jobs, Less Prosperity

The reversal in North Carolina's growth trends between the 1990s and 2000s means that North Carolina has fewer jobs and prime-age workers than it otherwise could have had. The results: lost output, foregone increases in living standards and overall lower levels of prosperity.

Figure 2 presents two ways of estimating the number missing jobs. *Scenario A* estimates the additional number of jobs and workers that would have existed in North Carolina in 2008 (through September) had the 1990s growth rates continued past 2000.9 If nonfarm payroll employment had continued to grow at an annualized rate of 2.2 percent, holding all else equal, North Carolina would have 487,000 more jobs than it does. Similarly, if the prime-age workforce had continued to grow at a rate of 2.2 percent per year, the state now would have 359,000 more prime-age workers.

Given the expansion in the size of the employment and workforce bases, it is unlikely that the high growth rates of the 1990s would have continued. *Scenario B* estimates the additional number of jobs and workers that would have existed as of September 2008, if growth had occurred at the lower annualized rates that characterized the entire 1990-2008 period. If non-farm payroll had continued to grow after 2000 at an annualized rate of 1.6 percent, holding all else equal, there would be 272,000 more payroll jobs. Similarly, if the prime-age workforce had continued to grow at an

PROJECTIONS VS. ACTUAL, NON-FARM JOB GROWTH ASSUMING 1990s & 1900-2008 GROWTH RATES, NORTH CAROLINA, 1990-2008



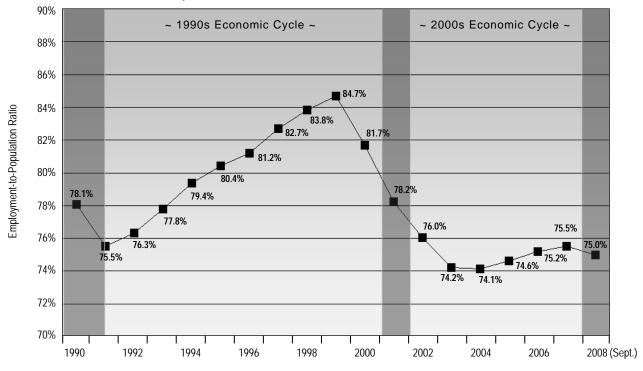
annualized rate of 1.9 percent, there would be 221,000 more prime-age workers.

If either of the scenarios had occurred, the North Carolina labor market would be stronger than it is. One way to measure the difference is by considering the *employment-to-population* ratio. That ratio measures the proportion of the working-age population that is employed. A high ratio means that a greater share of the workforce is engaged in economically productive activities. All things equal, periods with high ratios have better employment opportunities for individuals and higher levels of economic growth.

During the 1990s, the employment-to-population ratio steadily increased, peaking at 84.7 percent in 1999 (Figure 3). Over the 2000s, however, the ratio declined, and by 2008, just 75 percent of the prime-age workforce was employed. When viewed in context, proportionally fewer adults are employed in 2008 than in the recession years of 1990 and 2001. Moreover, while the 2008 employment-to-population ratio is high relative to recent years, it is the fourth-worst level posted since 1990.

Either of the growth scenarios described previously would have resulted in a more favorable employment-to-population ratio. Under *Scenario A*, the ratio would equal 79.2 percent, up 4.2 percentage points from the current level, and under *Scenario B*, the ratio would equal 76.8 percent, up 1.8 percentage points over the current level. Having an employment-to-population ratio lower than it could have been indicates lost economic growth and means that the North Carolina of 2008 is less prosperous than it could have been.

EMPLOYMENT-TO-POPULATION RATIO (NON-FARM JOBS TO PRIME-AGE WORKERS), NORTH CAROLINA, 1990-2008



NOTE: Shaded boxes mark recession periods.

SOURCE: North Carolina Budget & Tax Center

The Job Line Is
The Bottom
Line: Household
Well-Being and
Job Growth

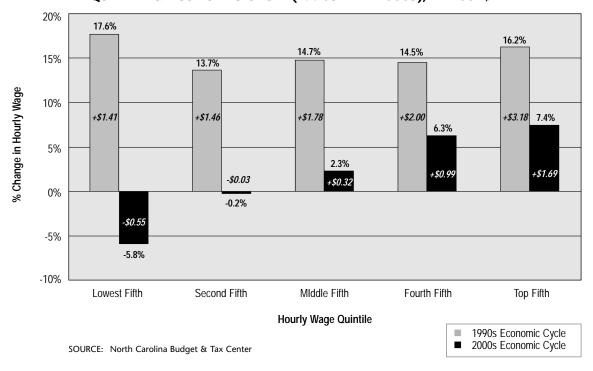
Besides forfeiting economic growth, North Carolina's shifting labor market patterns have exacted a toll from working households. Most households derive almost all of their annual incomes from the wages earned through paid employment and depend upon their jobs for access to crucial benefits like health insurance. When job creation lags, as happened during the 2000s, unemployment and underemployment climb and wages and incomes stagnate or fall. In the process, households lose access to health insurance, retirement and other vital benefits. In contrast, periods of strong job creation, like the 1990s, lead to low levels of low unemployment and rising living standards. For most households, then, their economic bottom lines rise and fall on the strength of the labor market. A comparison of the 1990s and 2000s economic cycles illustrates that dynamic.

The 1990s: A Rising
Tide Lifts All Boats

Especially during the decade's second half, a robust labor market created jobs at a level capable of both absorbing new workers and re-absorbing individuals who had lost a job or were not in the labor force. North Carolina's unemployment rate consequently plunged from a high of 6 percent in 1992 to a low of 3.2 percent in 1999.¹¹ Additionally, the underemployment rate, a more telling measure of labor underutilization, fell from 8.4 percent in 1994 to a low of 5.8 percent in 1999.¹²

Not only did the unemployment and underemployment rates drop, but they also dropped for every major population group, including those traditionally at a disadvantage in the labor market. The unemployment rate among African Americans, for instance, declined to 11.2 percent from 5.6 percent between 1992 and 1999.

CHANGES IN AVERAGE HOURLY WAGES, NORTH CAROLINA WORKERS, BY QUINTILE & ECONOMIC CYCLE (1990S AND 2000S), IN 2007\$



Similarly, the underemployment rate among workers without a high school diploma fell to 12.8 percent from 17.5 percent between 1994 and 1998.

The tight labor market of the 1990s resulted not only in increased employment opportunities for workers, but also in broad wage and income gains (Figure 4). After adjusting for inflation, average hourly pay rose for every group of wage earners between 1990 and 2000.¹³ Workers in the middle of the wage distribution saw their hourly pay grow by 14.7 percent over the course of the decade. Although the best-paid workers (top quintile) gained the most in actual dollars, the least-paid workers (bottom quintile) benefited the most in percentage terms. Low-wage workers realized a 17.6-percent gain in their hourly wages thanks to a tight labor market. Additionally the federal government chose to effectively boost the wages of the lowest-paid workers by raising the minimum wage and expanding the earned income tax credit.

Rising wages set the stage for rising incomes. Inflation-adjusted median household income, for instance, rose by 15.7 percent between 1991 and 2001, going to \$46,132 from \$39,863. In the same manner, per-capita personal income climbed by 19 percent and reached - a level equal to 91 percent of the national figure. A Rising wages and incomes also contributed to a reduction in poverty rate, which fell to 13.5 percent from 15.7 percent between 1992 and 2000. The share of people earning too little to be deemed "officially" poor but too little to be self-sufficient also fell from a high of 37 percent in 1991 to a low of 31.2 percent in 2000. Based on many measures of economic well-being, then, many North Carolina households were better off at the end of decade than at the beginning.

The 2000s: A Slightly Rising Tide Leaves Most Boats Stuck on Shore Unfortunately, few North Carolina households can say they were left better off by the 2000s economic cycle. As mentioned previously, the decade has been characterized by sluggish job growth, especially in the private sector. The result has been relatively high levels of unemployment and underemployment. After reaching a low of 3.2 percent in 1999, the unemployment rate rose during the 2001 recession and for several years afterwards before peaking at 6.7 percent in 2002. While the rate dropped slightly in subsequent years, it never dipped below 4.7 percent. During the 2000s, the unemployment rate averaged 5.7 percent, compared to an average of 4.4 percent during the 1990s cycle. Underemployment also rose during the 2000s, reaching a high of 11.1 percent in 2002 and averaging 9.8 percent over the cycle.

Unsurprisingly, unemployment and underemployment rates rose for most population groups, particularly for those traditionally at a disadvantage in the labor market. The African-American unemployment rate, for instance, soared to a high of 12.6 percent in 2003. Similarly, the underemployment rate among workers without a high school diploma averaged 21.2 percent during the 2000s cycle.¹⁸

The slack labor market of the 2000s resulted in fewer employment opportunities for workers, thereby leading to flat or declining wages and incomes for a broad swath of the population. After adjusting for inflation, average hourly pay declined or remained essentially flat for most wage earners during the 2000s. Workers in the middle of the wage distribution saw their hourly pay grow by just 2.3 percent over the course of the cycle. The best-paid workers (top quintile) saw their wages climb the most in both dollar and percentage terms while the least-paid workers (bottom quintile) saw their wages fall by 5.8 percent. The pressures facing low-wage workers resulted from the combination of a slack labor market and the federal government's decision to allow inflation to erode the value of the minimum wage.

Flat or falling wages set the stage for income declines. Median household income, for instance, was no different in 2007 than it was in 2000, after adjusting for inflation. Similarly, per-capita personal income fell to 87 percent of the national figure.²⁰ Poverty rates also rose, as did the share of people earning too much to be deemed "officially" poor but too little to be self-sufficient.²¹

Judged in its entirety, the 2000s economic cycle is extraordinary in that it represents the first expansion in American history in which the typical household was no better off at the end of a cycle than at the beginning.²² While beyond the scope of this paper, the underwhelming 2000s cycle has had a profoundly negative impact on many of the state's non-metropolitan and small metropolitan areas. For instance, annual average private employment in the four-county Hickory metropolitan area dropped by 21 over the course of the expansion.²³ In the same vein, annual unemployment in the Rocky Mount metropolitan area averaged 6.8 percent over the cycle.²⁴ For such communities, there was no expansion; the 2001 recession simply never ended.

A Hard Rain Is Going to Fall: The 2008 Recession and Its Impact on the Labor Market

The recession that began in 2008 is becoming the most severe downturn to touch the nation since at least the early 1980s. Moreover, it is not a normal cyclical downturn; rather, it is a downturn supercharged by the bursting of a speculative housing and housing-related bubble; the evaporation of trillions of dollars of housing and asset wealth that had been sustaining consumer spending; the buckling of the financial system; an unsustainable trade balance; and a credit freeze. Thus, a prolonged, severe downturn seems likely. The research firm Moody's Economy.com

projects that the economy will deteriorate steadily through the first quarter of 2010. If an adequate federal stimulus package in enacted, Moody's estimates that unemployment will peak at 8.1 percent in early 2010 (or 10 percent in late 2010 if no stimulus is enacted).²⁵ Similarly, one state-specific forecast projects that North Carolina's unemployment rate will reach 8 percent by the end of 2009.²⁶

Even though North Carolina did not experience the housing bubble found in other parts of the county, the state and its labor market are not immune from the consequences of a bursting bubble. So far in 2008, the state's labor market steadily has deteriorated. Between January and September, net job creation ground to a virtual standstill, and the unemployment rate climbed to 7 percent from 4.9 percent.²⁷ As of September, some 318,000 Tar Heels were jobless and actively seeking work. The number and share of unemployed workers likely will mount in future months.

Owing to the weakness of the 2000s cycle, the typical North Carolina household is entering this downturn less prepared than was the case in 2001. The 2001 recession began following a period of robust, broadly shared prosperity. Wages and incomes had increased, and households had relatively less debt and greater savings. However, the current recession comes on the heels of a period marked by stagnant wages and comparatively high unemployment, thereby leading many households to spend down savings and take on more debt to meet basic living expenses. Now that housing values are declining, credit markets are freezing and job losses are mounting, it is clear that many households simply are tapped out and unable or unwilling to spend. Thus, the stage has been set for the spiral of falling demand that defines a recession.

The current recession has caused public leaders, analysts and commentators to set their gaze on immediate problems and solutions. North Carolina officials, for example, are concerned about how to close a fiscal year 2009 budget shortfall that could run as high as \$1.8 billion and a fiscal year 2010 gap that could exceed \$3.3 billion - an amount equal to 16 percent of the current general fund budget.²⁸ Yet no matter how serious the current problems are, leaders must not assume that the recession's effects will be confined to a defined recessionary period. If the experiences of the last two recessions offer any guide, North Carolina households will struggle with the consequences of the 2008 recession well after it officially ends.

As mentioned previously, both the 1990-91 and 2001 recessions were followed by "jobless" recoveries in which the overall economy grew while the labor market continued to contract. While the jobless portion of the 1990s recovery was brief, the jobless portion of the 2001 recovery was prolonged. North Carolina continued to lose jobs through 2003, and it took until 2005 until the state had approximately as many jobs as it did in 2000. In other words, it took four years from the recession year for the labor market to recover (five years for private-sector employment). And as noted earlier, that slack labor market contributed to stagnant living standards for working households.

If the eventual recovery to the 2008 recession is a jobless one similar to the recovery after the 2001 recession, North Carolina's labor market will limp along for years to come. Research by the Federal Reserve Bank of Philadelphia - research that should be taken with a large grain of salt - suggests that the current recession will last until the summer of 2009.²⁹ If that is so and if North Carolina experiences a jobless recovery identical to the 2001 one, the labor market would continue to shed jobs until 2012. And it would take until 2014 before the labor market regains its previous peak. Given that the current recession is already proving to be more severe than the 2001 one,

the recovery could take even longer. Nevertheless, the core point remains unchanged: North Carolina will be dealing with this recession and its aftermath for years to come.

Providing Shelter from the Storm: What Can Federal and State Leaders Do?

The magnitude of the economic problems confronting North Carolina and the nation are beyond the ability of any individual or firm to solve. Only common action can restore the confidence needed to break the recession, end that the market abuses that contributed to the current situation, build a foundation for sustainable long-term growth and ensure that everyone has an opportunity to benefit from that growth. Doing that requires action on the part of North Carolina's federal and state leaders.

Setting the Pace: The Federal Role

Given the size and scale of the current recession, the federal government must play the leading role in any response. Only the federal government possesses the resources needed to address a nationwide problem and do what private individuals and firms currently are unable or willing to do: spend at the level needed to break the self-deepening spiral of falling demand. At a minimum, the federal government must enact a stimulus package that puts money in the hands of the individuals who are most impacted by the downturn and the most apt to spend quickly additional resources. Any package also must include meaningful aid to state governments (e.g. Medicaid assistance, general aid) to prevent them from making the kinds of draconian budget cuts that - while needed to help satisfy constitutional balanced-budget provisions - only exacerbate recessions.

From the perspective of working households, unemployment insurance benefits and food stamp benefits must be extended as necessary. Consider unemployment insurance. While unemployment insurance payments in North Carolina are modest in size, they have a profound impact on the well-being of unemployed families, their families and communities. Research has found that every \$1 spent on unemployment insurance payments generates \$2.15 in economic benefits. During the 2001-02 period, for instance, unemployment insurance payments had a net impact of \$3.8 billion on North Carolina's economy. Congress already has enacted two extensions in 2008, but given worsening employment conditions, additional extensions in 2009 may be required.

While the exact size of the needed stimulus is both subject to debate and evolving along with economic conditions, it likely will require an outlay that seems large in dollar terms (estimates range from \$300 to \$600 billion) but are manageable in relation to the size of the economy (ranging from 3 to 6 percent of gross domestic product). Lawmakers consequently should not dismiss a stimulus measure simply because of its apparent cost, nor should they insist on making any outlay budget neutral since, logically, a neutral outlay has no stimulating effect. Current realities justify the prudent use of deficit spending to prevent conditions from worsening.

Given that the current downturn also is likely to last for some time, federal lawmakers also should seize the opportunity to make some long-term investments that would manage to put people to work, improve the quality of the nation's infrastructure and enhance the country's economic potential. Spending on physical infrastructure - transit, bridges and wastewater systems, to name but a few - linked to maintenance and projects that are "ready to go" would both stimulate the economy, address pressing needs and create productive assets that can improve the quality of life. For

example, depending on how it is structured, infrastructure funds could be used to help meet the need to modernize rural water and sewer systems.

Supporting a Recovery: The State Role

Owing to the constitutional requirement to balance the budget, state leaders lack the kinds of stimulus tools available to their federal counterparts. Ironically, the tools that are available to the General Assembly and executive branch have the capacity to make conditions worse. State leaders therefore must pay careful attention to the consequences of their actions, less the treatment prove worse than the illness.

Perhaps the single most devastating step that state leaders could take is to try to "cut" their way to a balanced budget since the cuts that would need to be made would come primarily in education and human services - the very services that people demand more of during a downturn. For instance, full-time equivalent enrollment in the North Carolina Community College System is on track to exceed the budgeted level by 5.5 percent. Because the state's two-year institutions are funded on the basis of the prior year's enrollment rather than the current year's enrollment, this translates into \$19.9 million in net unfunded enrollment costs.33 To accommodate the individuals preparing themselves for new opportunities, more, not fewer, resources will be needed. Given the magnitude of the potential shortfall, state leaders must consider a full range of revenue and spending tools to balance the budget in ways that do the least amount of harm.

Just as important is the need to recognize that the hardships facing the state and its households will last long past the official end of the recession. Even after macroeconomic conditions stabilize and overall growth resumes, ways will need to be found to restart job growth if living standards are to rise. Doing that will require increased attention to ways of integrating economic and workforce development in the pursuit of quality jobs. For instance, the state has the ability to use its ownership of public facilities and contracting authority to "make a market" for certain kinds of "green-collar" jobs, especially in the building trades. 34 At the same time, with adequate funding the state's community colleges could train the workers needed to hold those jobs, many of which pay solid wages, offer benefits and have a career path. Forgetting about jobs once the recession is over will set the stage for the kind of sluggish growth that characterized the 2000s.

Conclusion

he 2008 recession is shaping up to be the most severe one since at least the early 1980s. Unfortunately, the typical North Carolina household is ill-equipped to weather the storm. This is because the 2000 economic cycle was a sluggish one marked by weak job growth, relatively high levels of unemployment and stagnant living standards. In the short term, federal and state leaders need to adopt wise policies that will help stimulate the economy and alleviate the hardships facing working households. In the long term, job growth must be restarted in a way that produces a broad, based shared prosperity similar to the pattern of the 1990s.

Author's analysis of data from the U.S. Bureau of Economic Analysis, State Annual Personal Income series.

Recession dates are the national ones identified by the National Bureau of Economic Research. Available online at http://www.nber.org/cycles.html

Unless otherwise noted, all jobs and workforce counts used in this report are net figures rather than gross ones. In the typical year, for example, the economy both creates and destroys sizable numbers of jobs, and the net change represents the growth or shrinkage in payroll employment after accounting for job creation and destruction.

- 5 All data in this and the two sub-sections come from the author's analysis of workforce and job statistics compiled by the U.S. Bureau of Labor Statistics through its Current Employment Statistics Program and U.S. Census Bureau estimates.
- 6 National Bureau of Economic Research, see note 3.
- 7 Note that North Carolina's labor market recovered faster than the national one following the 1990-91 recession.
- 8 National Bureau of Economic Research, see note 3.
- 9 Growth rates and projections were calculated by the author based on the labor and population data described in note 5.
- 10 The employment-to-population ratios cited in this section were calculated by the author.
- 11 Economic Policy Institute analysis of the Current Population Survey, U.S. Bureau of the Census, various years.
- 12 Ibid. Note that the Current Population Survey did not begin tracking the underemployment rate until 1994.
- 3 Ibid. Note that all dollar values have been adjusted for inflation to their 2007 equivalents using the CPI-RS.
- 14 Median household income figures are taken from the Current Population Survey and per-capita personal income figures are taken from the U.S. Bureau of Economic Analysis. Both have been adjusted for inflation to their 2007 equivalents using the CPI-U.
- 15 See note 11.
- 16 Ibid.
- 17 Ibid.
- 18 Ibid.
- 19 See note 13.
- 20 See note 14.
- 21 See note 11.
- 22 Economic Policy Institute, The State of Working America, Ithaca, NY: Cornell University Press, forthcoming.
- 23 Author's analysis of data of the Quarterly Census of Employment and Wages, Employment Security Commission of North Carolina, various years.
- 24 Author's analysis of Local Area Unemployment Statistics, Employment Security Commission of North Carolina, various years.
- 25 Mark Zandi, "When Will It End?" Presentation to State Fiscal Analysis Initiative annual conference, Washington, DC., November 19, 2008.
- 26 Michael Walden, The North Carolina Economic Outlook: Winter 2008-2009, Raleigh, NC: North Carolina State University, November 2008.
- 27 Author's analysis of Current Employment Statistics, U.S. Bureau of Labor Statistics, 2008.
- 28 Elaine, Mejia, "Understanding the Current and Upcoming State Budget Shortfalls," BTC Brief, Raleigh, NC: North Carolina Budget & Tax Center, November 2008. Available at http://www.ncjustice.org/assets/library/1336 <a
- 29 "Economic forecasters survey says recession to last 14 months," USA Today, November 17, 2008.
- 30 John Quinterno, Buddy Can You Spare a Dime? Putting North Carolina's Unemployment Insurance System Back to Work, Raleigh, NC: North Carolina Budget & Tax Center, March 2007. Available at http://www.ncjustice.org/assets/library/902_ncbudgetandtaxcenterunemploymentinsurance.pdf
- 31 *Ibid*.
- 32 See, for instance, Lori Montgomery, "Democrats' Stimulus Plan May Reach \$700 Billion," The Washington Post, November 24, 2008, p. A-1.
- 33 Author's calculation based on data presented to Financial and Capital Needs Committee, North Carolina State Board of Community Colleges, November 13, 2008. Note that the community college system has \$22.2 million in unfunded enrollment growth, but it also has a \$2.5 million enrollment reserve fund. After depleting the reserve fund, the system will have net unfunded enrollment growth of \$19.9 million.
- 34 For more information, see John Quinterno, "Grow a Green Workforce," Raleigh, NC: North Carolina Budget & Tax Center, October 2008. Available at http://www.ncjustice.org/assets/library/1314 wkcgreenjobs.pdf

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