VERMONT ECONOMIC OUTLOOK

- Looking at the U.S. economy, developments over the past month and the first quarter of calendar year 2013 were characterized by a generally strengthening private sector which has been coping with an increasing amount of fiscal drag from sequestration—layered on top of the government sector that already was in retrenchment even before sequestration.

    - The BLS reported that 165,000 new nonfarm payroll jobs over the month of April, a decidedly positive data point amongst the unimpressive job growth recorded over the beginning of 2013.

    - Real GDP still appears "on track" for a roughly 2% real GDP growth rate for calendar year 2013.

- However, the U.S. economy is clearly poised to slow as federal sequestration inevitably restrains activity across the U.S. economy.

    - Allowing for normal lags between budget authority and actual reductions in expenditures, it is hard to imagine the already considerable fiscal drag from pre-sequestration spending reductions will not have additional and significant negative impacts on economic activity over at least the next 6-12 months (or into mid-fiscal year 2014).

    - Estimates are that sequestration could reduce U.S. payroll job growth by as much as 500,000 jobs by this time next year. This will very likely be a noticeable and negative impact on the economy—now that sequestration is a reality and is likely here to stay.

    - Add to that the latest with respect to Syria and Europe,[1] and the headwinds for the U.S. and Vermont economies will likely increase during the next two to four fiscal quarters—with the attendant restraining effect on the growth of revenues those factors suggest.

- For the most part, the continuing Vermont economic upswing over the next five years is expected to be fueled by a revival in the pace of progress in the global economy,[2] reflect good niche market positioning by major Vermont firms to take advantage of that growth, a return to more normally functioning financial markets, the expected firming in Vermont's residential and second home markets, and the maintenance of existing stable job and business activity levels at key "economic driver" employers like IBM, Green Mountain Coffee Roasters, Fletcher Allen Health Care, and other key employers.

    - Repairs and restoration activity related to Tropical Storm Irene are also expected to assist in providing some forward momentum continue through calendar year 2015—as local recovery activity continues.

[1] For example, the latest developments in Cyprus.
[2] Including the addressing of the critical economic and financial issues in Europe.

- However, the revised NEEP outlook also reflects a modest downgrade in the overall economic forecast for the period relative to the NEEP forecast update published last December.

    - The slight forecast downgrade includes: (1) yet another 9 to 12 month delay in the expected timing of the return of more typical rates of recovery-growth in the Vermont economy (relative to last Fall's NEEP forecast), and (2) a slight improvement in the mid-term growth rates[3] for most Vermont economic benchmarks.

- Improvement in the state's unemployment rate will continue over the forecast period but at an initially slower pace than either the U.S. or New England economies as a whole—then at a relatively medium pace in the mid to long term portions of the forecast with expected rates between New England's and the U.S.'s.

    - Average annual unemployment rate in Vermont is expected to drop over 1.5 percentage points over the calendar 2013-2017 forecast period, settling in at an average annual rate of 3.4% by calendar 2017.

- Positive job gains are expected in all NAICS supersectors[4] except government, according to this Spring 2013 NEEP outlook revision.

    - Among the notable gaining sectors are the construction sector (at a +5.3% annual average over the calendar year 2013-2017 period) and the leisure and hospitality sector (at a +3.1% annual average over the calendar year 2013-2017 period). Although initial growth in the construction sector will be restrained, most of the increases in employment are expected to occur in 2015-2016.

    - Positive performances over the forecast period are also expected in the professional and business services sector (at a +2.4% annual average over the calendar year 2013-2017 period) and the natural resources and mining sector (at a +1.9% annual average over the calendar year 2013-2017 period).

    - The government subsector is expected to contract by a -0.2% yearly average over the forecast timeline. Most of the five year decline is expected to occur over the rest of 2013 and 2014.

- The conference theme of this NEEP outlook update involves the changing outlook for the manufacturing sector in each New England state and whether or not New England is prepared to effectively respond to the recent and on-going shifts that are underway in this important goods-producing sector in all of our states.

    - Put simply, are our respective states prepared to meet the challenges and opportunities that this sector offers to the economy over the next five years and beyond?

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[3] For calendar years 2015 and 2016.

[4] NAICS means North American Industry Classification System. Labor data reported by the Bureau of Labor Statistics is classified by NAICS sector. Public and private reporting agencies follow this paradigm.

- The answer to that provocative question involves a good understanding of the current environment impacting manufacturing's prospects and the relative importance of manufacturing to the state economy.
    - Regarding the first, buoyed by the weak U.S. dollar as well as by successful product differentiation in the marketplace associated with the Vermont Brand, Vermont manufacturing has recently come off the bottom and now appears to have been staging a bit of a comeback.
    - Regarding the second issue relating to the importance of manufacturing, there is no doubt that manufacturing is a vitally important contributor to the health and performance of the Vermont economy—accounting for 9.8% of the jobs and 12.0% of the earnings in calendar year 2011 and contributing nearly a quarter (24.2%) of the total earnings growth in the state in calendar year 2012 while again representing only about 10% of the job base.
- What is needed for the state's manufacturing sector to succeed in the future involves an understanding of the following: (1) a recognition of the dynamic globally competitive environment that manufacturing finds itself in today—including what challenges and opportunities that implies for the future, (2) what factors have enabled Vermont manufacturer's to succeed in the past, and (3) how these factors will evolve and interact in an iterative way over both the near-term and long-term future.
    - Regarding the first, the world continues to become more integrated economically and the State has become far less insulated from national and global economic events. State manufacturers compete head-on in this global arena, while at the same time many of the operating expenses they pay that are part of their cost structure are determined by state, regional and local factors and policies.
    - Regarding the second, it is no secret that the State of Vermont—indeed the entire New England region—is not exactly the lowest cost place in the union in which to conduct business. Since Vermont manufacturers are likely never going to be able to compete as the "lowest cost provider," the State's factories need to compete in markets where "lowest price" is not the key deciding factor for the purchase.
    - Instead, successful manufacturers in Vermont must: (1) produce high "value-added" products, (2) achieve high levels of labor productivity through specialized and innovative applications of technology and/or knowledge to the production process, (3) maintain a continuous capital investment program aimed at improvement of productive capacity and efficiency, and (4) utilize the State's natural resource endowment to gain competitive advantage and/or to attract-maintain skilled workers.
- Combining the evolving environment of manufacturing with the characteristics of successful Vermont manufacturers, policy in Vermont should be focused on the provision of the necessary public infrastructure that allows the state's factories to effectively compete in the global market place, the provision of customized educational and training programs to allow Vermont's manufacturers to effectively

compete with lower cost production facilities in faraway places, and a global view of the implications of both existing and future policies.

- Policymakers that ignore the globally competitive implications of current and future policies are "at risk" for undermining a vibrant and high-paying manufacturing sector that would otherwise be an important fiscal supporter of the very social and environmental safety net policymakers are seeking to provide.

The Vermont Situation:

Turning to the Vermont economy, the state has continued to make modest recovery progress over the past six months since the last NEEP outlook revision, despite the uncertainty regarding the fiscal cliff and other fiscal policy issues and the overall global economic slowdown—particularly in Europe and some parts of Asia. Through March, the state has recovered roughly 11,000 of the nearly 15,000 payroll jobs lost during the last economic downturn—a rate of recapture of 77.9%.[5] However, the character of the state's labor market recovery has been uneven, following what previous NEEP forecast revisions have referred to as a "saw-toothed" pattern. In each case, whether the state was on the upside or the downside of this uneven pattern, it was clear that economic conditions were not as positive (when on the upside of the pattern) or not as poor (when on the downside of the pattern) as the labor market reading was indicating.

Using the most recent state employment statistics, on a year-over-year basis since March of 2012 Vermont has made considerably positive progress in the education and health services sector, at +2.6%, as well as trade, transportations, and utilities, at +1.3%, over the same time period. The state's construction sector contracted by a strong -5.0%, ranking Vermont near the bottom of the New England and 45th in the 50 states in construction employment growth over the past year. One likely cause of this sector's contraction is the completion of many of the public infrastructure or building repairs related to Tropical Storm Irene, as workers are no longer needed following the large amount of repair work inherent in disaster relief for a storm of that magnitude. However, the 5.0% year-over-year job decline in the Construction sector was the only declining sector, although both the Information and Financial Activities subsectors experienced no change in employment levels over the past year. Despite an expected continuation of Public Sector de-leveraging by way of Sequestration and other Federal Fiscal Policy - related layoffs, Government employment in Vermont has experienced a positive 0.7% change for the year ended March 2012.

At the present time, the state's labor market recovery appears to be on the downside of this recurring "up and down" pattern. As a result, the state's comparative job change record has appeared to slip somewhat from its "up-side" position that Vermont occupied during the NEEP forecast revision last fall. Despite Vermont's saw-toothed employment growth over the past 40 months, employment gains continue to outpace US job recovery since the beginning of the Great Recession.

On the housing front, signs of a housing market turnaround continued as the Case-Shiller Housing Price Index rose 9.4% compared to a year ago. This marks the ninth consecutive

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[5] This compares favorably to the 66.1% re-capture rate for the New England regional Economy as a whole and the 71.0% job re-capture rate for the U.S. economy through April—or including one additional month relative to Vermont and New England.

monthly year-over-year increase registered by this key indicator of housing prices, beginning in June 2012. Some of this sizeable price increase is due to a strong cyclical correction in some of the harder hit metro areas which saw nearly 50% price declines.

The Vermont Economic Outlook:

The Vermont near-term economic outlook, which is based on the Moody's Analytics, Inc. national "Control" forecast as described above, includes a Vermont economy that will follow a similar path to the U.S. economy's progression throughout the calendar year 2013-2017 period. Looking at the major macro variables, the updated forecast calls for the current state economic upturn to proceed along a modest recovery/expansion path for real output (as measured by Gross State Product or GSP), for inflation-adjusted or real personal income, and for its labor market recovery. This restrained rate of recovery in Vermont is an artifact of the less than average rate of output, income, and job decline for the Vermont economy during the "Great Recession" relative to its U.S. and New England counterparts.

For the most part, the continuing Vermont economic upswing is expected to be fueled by a revival in the pace of progress in the global economy.[6] This reflects good niche market positioning by major Vermont firms to take advantage of that growth, a return to more normally functioning financial markets, the expected firming in Vermont's residential and second home markets, and the continuation of business activity at key employers in the state like IBM, Green Mountain Coffee Roasters, Fletcher Allen Health Care, and others. However, the revised NEEP outlook also reports a modest downgrade in the overall economic forecast for the period relative to the NEEP forecast update published last May. The slight forecast downgrade includes: (1) yet another 9 to 12 months of stunted growth due to fiscal policy decisions from Washington (2) a mid-forecast (2015 and 2016) spike in major macro indicators, propelling the economy to what might be thought of as "normalized" growth patterns before returning to the protracted pace of progress we've recently become accustomed to for the final year of the forecast horizon.

In terms of Vermont's key economic variables, the NEEP forecast update for Vermont expects an annualized 1.9% increase in output through the remainder of calendar year 2013. Calendar year 2014's output is then expected to follow a more normal 3.6% annual rate of increase, subsequently leading to a 4.4% rate of growth for calendar year 2015. For calendar year 2016, GSP growth is expected to pull back slightly, reaching 3.2%, while GSP growth in 2017 is expected to be further restrained to 2.7%, as the economy slows in the final year of the five year forecast time horizon. The rate of payroll job growth is expected to be 0.8% in calendar year 2013—followed by increases of 1.3% in calendar year 2014 and 2.3% in calendar year 2015. The rate of payroll job increase is expected to creep back to 1.9% in calendar year 2016, before tailing off to a 1.2% rate in calendar year 2017.

Nominal dollar personal income is expected to post a performance similar to GSP and employment growth, ballooning in the initial years of the forecast horizon then tapering off to a more restrained level of growth. For the remainder of calendar year 2013, nominal dollar personal income is expected to increase by 0.4%, followed by increases of 1.5% in calendar year 2014, with Personal Income growth peaking in 2015 at 2.3%. The final two years of the forecast horizon show this metric steadily declining, at 1.8% in 2016 and 0.6% in 2017. The state's unemployment rate is expected to continue to perform consistently superior to US Unemployment rates throughout the CY 2013–2017 forecast timeline. The

[6] This includes the avoidance of an actual economic-financial implosion in Europe.

Vermont FHFA Housing Price Index is also expected to post a more modest and restrained rate of increase in this forecast timeline than in previous analyses, reflecting the anticipated summer slowdown and the resulting effect on employment and personal wealth.

The sector-by-sector breakdown shows that all major job categories except the Governmental Sectors[7] will be adding jobs over the calendar year 2013-2017 forecast update period. Among the sectors contributing significantly to Vermont's economic and labor market growth-recovery during the forecast period are: the construction sector (at an average 5.0% per year over the calendar year 2013-2017 period), the leisure and hospitality services sector (at an average 3.1% per year over the calendar year 2013-2017 period), and the professional and business services sector (at an average 2.4% per year over the calendar year 2013-2017 period). The best performer in the forecast, the construction sector, is expected to end 2013 averaging 1.7% annually. Employment in this sector is then expected to grow at a significantly higher pace of 7.2%, 8.4%, 5.4%, and 3.7% through the remainder of, the forecast horizon in 2014, 2015, 2016, and 2017, respectively.

Manufacturing sector employment is expected to show a modest overall increase, averaging 0.8% change over the forecast timeline—assuming no major employer hiccups in this sector[8]. Initial and near-term employment growth in the sector begins with 2013's average of 1.6%. 2014 and 2015 are expected to experience average yearly employment growth of 0.4% and 1.3% respectively. In 2016, employment in manufacturing will increase by 1.0%, followed by 2017's annual average growth of 0.0%, neither growing nor contracting in the final year of the forecast timeline.

Although the state's economic performance is expected to be moderately positive over the calendar year 2012 to 2016 period, the updated December 2012 NEEP forecast for Vermont also expects that labor market conditions will remain "tight" throughout the state and there will be a modest recovery in housing prices in the Vermont housing market—reflecting the long slow boat to recovery in the aftermath of the prolonged, deep housing market recession. The state's annual average unemployment rate is expected to fall through the forecast period, registering a 4.7% annual rate for calendar year 2013, a 4.3% annual average in calendar year 2014—followed by a decline to a 3.9% annual average in calendar year 2015, to a 3.6% annual average in calendar year 2016, and rounding out the forecast period with a projected 3.4% annual average unemployment rate in calendar year 2017 for the State of Vermont. This forecast, if achieved, would result in a Vermont unemployment rate at the end of calendar year 2017 being a full 2.0 percentage points below the U.S. unemployment rate and 1.4 percentage points below the New England average unemployment rate at that time.

Turning to the state's housing market recovery, the May 2013 revised NEEP forecast for Vermont expects there will be improvement in sales and construction activity in the Vermont housing market, but these improvements will occur very slowly. According to the FHFA Price Index, the prices in Vermont reached the anticipated turning point in the 3rd Quarter of calendar year 2012, when the index began to report a sustained increase in value. Having

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[7] Meaning all private Sector industry groups are expected to add jobs over the forecast period.

[8] As this forecast goes to press, the IBM layoff rumor mill is again in "high gear." This lay off concern in Vermont revolves around public statements by IBM management following what was described as disappointing first quarter of 2013 profit results indicating that the company would take a $1.0 billion write off this year for "resource balancing," which in the past has indicated some layoffs. IBM executives also indicated that the majority of the company's resource balancing would occur during the April to June quarter of this calendar year—whereas last year this resource balancing occurred over all four quarters and was not concentrated as appears to be the case this year.

reached a “bottom” in the market, housing prices are expected to continue recovering, with more consistently positive movement. This forecast update calls for prices to realize a schedule of annual increases: 1.2% increase in calendar year 2013, 1.7% increase in calendar year 2014, 2.0% increase in calendar year 2015, 3.3% increase in calendar year 2016, and a 3.6% increase in calendar year 2017, closing the forecasted horizon. While the Vermont housing price performance has been decidedly superior to the U.S. and New England averages over the calendar year 2007 to calendar year 2012 time frame, the more restrained housing price growth in Vermont over the calendar year 2013 through 2017 time frame is expected given the fact that Vermont housing prices as measured by the Federal Housing Finance Agency index did not experience nearly the rate of housing price decline that was experienced in many other states and relative to the New England and U.S. averages during the deep recession in the housing market.[9]

The forecasted payroll job gains would have Vermont’s total nonfarm employment back at its peak level (last achieved in June 2007) during the fourth quarter of calendar year 2013. For calendar year 2013, Vermont is forecast to see inflation-adjusted output and Personal Income rebound, following the recovery patterns of New England and the US as a whole. Payroll Jobs in Vermont will grow a pace in between the rest of New England and the US. The state’s unemployment rate, in contrast, continually stays lower than both the U.S. and New England averages, tracking down from the 6.9% annual average peak in calendar year 2009 to a 3.4% annual average level forecasted for calendar year 2017. The housing market, as evidenced by the FHFA housing price index, is expected to post a more moderate performance in Vermont relative to the rest of the United States and New England, reflecting the more moderate level of price declines experienced in Vermont over the calendar year 2007-2012 time frame and the more modest rate of recovery that typically accompany housing price turnarounds in constrained lending environments—which is generally expected to be the case during the five year forecast time frame.

Conference Theme: Manufacturing is Changing: Is New England Ready?

The conference theme of this NEEP outlook update involves the changing outlook for the manufacturing sector in each New England state and whether or not New England is prepared to effectively respond to the recent and on-going shifts that are underway in this important good-producing sector in all of our states. Put simply, are our respective states prepared to meet the challenges and opportunities that this sector offers to the economy over the next five years and beyond?

Before delving into that question, it is important to understand the current environment impacting manufacturing’s prospects and the relative importance of manufacturing to the state economy. Regarding the former in Vermont, even though there are lingering challenges which may limit a significant rise in manufacturing activity and jobs over the near-term, the long-term outlook for manufacturing has recently taken on a brighter tone. Buoyed by the weak U.S. dollar (which has boosted export activity) and buoyed by successful product differentiation in the marketplace associated with the Vermont Brand, Vermont manufacturing has recently come off the bottom and now appears to have recently been staging a bit of a comeback. Barring any significant, negative layoffs or business

[9] Moreover, it is highly questionable that other markets will experience as sharp a bounce-back as is expected in the forecast—given the still very tight lending practices for housing in the market place.

setbacks at key Vermont manufacturers like IBM (see above), Green Mountain Coffee Roasters, and any of the state's key resource processing firms like Ethan Allen, the brighter hue of the manufacturing sector's outlook comes as a welcome development after years of struggle in this key good producing sector in the Vermont economy.

Recent job data support this view, with seasonally adjusted payroll jobs in manufacturing has recently come off the bottom through March of 2013 by a total of 2,200 jobs or by 7.3% of its February 2010 cyclical low. However, there is a bit of a contrast between the Durable Goods aggregate and the Nondurable Goods category—with a significantly brighter recent performance in the Nondurables category (at 1,700 payroll jobs added through March 2013 since the most recent February 2010 cyclical low) and a relatively flat but still positive turnaround of 600 jobs or +2.8% "off the bottom" payroll job gain through March 2013 in the Durable Goods category from its most recent cyclical low registered in January 2010 .

Regarding the second issue relating to the importance of manufacturing, there is no doubt that manufacturing is a vitally important contributor to the overall health and performance of the Vermont economy. Using 2011 annual average data (the latest year as of this writing where both employment and earnings data are available from the Bureau of Economic Analysis), manufacturing accounted for 9.8% of the jobs and 12.0% of the earnings. The Manufacturing sector was the second largest private sector NAICS supersector in terms of earnings by industry—second only to the rapidly rising health care and social services supersector. The Vermont manufacturing sector also was a significant contributor to earnings growth during calendar year 2012, contributing nearly a quarter (24.2%) of the total earnings growth in the state last calendar year, while again representing only about 10% of the job base.[10]

Understanding the needs of a state manufacturing base that produces a broad range of products from semiconductor chips and pharmaceuticals to furniture, machine tools, cheese and beer can be daunting—even in the state of Vermont which is not known for its factory base's diversity. Further, understanding just what the common needs are for makers of the above referenced projects is not always straight-forward or clear.

For the most part, what is needed for the state's factory sector to succeed in the future involves an understanding of the following: (1) a recognition of the dynamic globally competitive environment that manufacturing finds itself in today—including what challenges and opportunities that implies for the future, (2) what factors have enabled Vermont manufacturer's to succeed in the past, and (3) how these factors will evolve and interact in an iterative way over both the near-term and long-term future. While there are no "silver bullets" to a successful future in manufacturing in Vermont, there are concrete steps that can be taken that also do not involve "rocket science."

Regarding item (1) above, the world continues to become more integrated economically and the State has become far less insulated from national and global economic events. Today, manufacturers in Vermont increasingly compete with companies in previously faraway places like China, Korea, Brazil, and a whole host of heretofore places that were not imaginable just 20 years ago. State manufacturers compete head-on in this global arena, while at the same time many of the operating expenses they pay that are part of their cost structure are determined by state, regional and local factors and policies that often involves

[10] Calendar year 2012 job count data from the Bureau of Economic Analysis of the U.S. Department of Commerce was not available as of the time of this writing.

policies that are developed without the full recognition of this important competitive dynamic that affects this key good producing sector of the State economy. Lastly in this area, technological innovation is advancing more rapidly each year, and the increasingly rapid pace of change has and continues to transform the operating environment of virtually all manufacturers in the State. This is compelling successful manufacturers in Vermont to use their work forces and investments to "accomplish more with less." The ability to continue to continue to increase productivity of labor and capital is vital to the success of the State's factory base.

Regarding item (2) above, it is no secret that the State of Vermont—indeed the entire New England region—is not exactly the lowest cost place in the union in which to conduct business. Located in the upper left hand corner of the country, geography says that Vermont's lack of geographic proximity to many key national consumer markets means that manufacturers in Vermont and in her sister states in New England are never going to be able to compete as the "absolute lowest cost provider" for goods and services at any time for the foreseeable future. Instead, the State's factories need to compete in ways that where "lowest price" is not the key deciding factor for the prospective goods purchase.

From the standpoint of public policy, combining the environmental factors impacting the task of strategic economic development with the key attributes of a successful Vermont manufacturer, there are at least three principal areas of focus that will help prepare State manufacturers to compete in the future. The first involves the provision of the necessary public infrastructure that allows the state's factories to effectively compete in the global market place. This principally includes the provision of access to good roads, bridges, rail, and air transportation links and access to a state-of-the-art telecommunications system that allows for the efficient and timely movement of people, things and information in today's increasingly competitive global economy.

The second involves providing customized educational and training needed to allow Vermont's manufacturers to effectively compete with lower cost production facilities in faraway places. This likely involves forging additional strategic partnerships between employers, economic development organizations, and grades K-12 education providers, and post-secondary educational institutions and providers that would be designed to help assure that the State's manufacturers have access to the type of educated and trained work force needed for today's cut-throat competition in the global market place.

Thirdly, policy on all levels—including federal, state, regional and local—needs to be mindful of the broader, global view of the implications of both existing and future policy. This sensitivity involves both the cost of those policies as well as the other broader objectives. Policymakers that ignore the globally competitive implications of current and future policies for manufacturers are "at risk" of undermining a vibrant and high-paying manufacturing sector that would otherwise be an important fiscal supporter of the very social and environmental safety net initiatives policymakers are seeking to implement.

Jeffrey B. Carr, President
Economic & Policy Resources, Inc.
400 Cornerstone Drive, Suite 310
P.O. Box 1660
Williston, Vermont 05495-1660
(800) 765-1377

Robert A. Chase, Senior Economist
Economic and Policy Resources
400 Cornerstone Drive, Suite 310
P.O. Box 1660
Williston, Vermont 05495-1660
(800) 765-1377