

New Hampshire Economic Outlook
New England Economic Partnership
October 9, 2014

Executive Summary

New Hampshire and Vermont are in a foot race to see which state has the second fastest job recovery in New England. Massachusetts has already recovered all of the jobs lost in the Great Recession. While New Hampshire still has a relatively low unemployment rate (4.4 percent in July 2014 compared to the U.S. 6.2 percent), state job growth has been slow and disappointing. About two thirds of the jobs added in the last few years pay a below average wage. New Hampshire job growth will lag the U.S. rate in the forecast period, in part because the New Hampshire economy will grow slower than the US economy in the future.

In the past, when considering economic development policies, New Hampshire has focused on those areas where the state typically ranks high in state-by-state surveys: the creation of a low-tax environment, with high quality of life measures, such as a clean environment, low poverty and low crime.

But New Hampshire faces considerable disadvantages in other areas, especially when compared to areas of the country that are seeing more robust economic growth. These challenges go beyond the economic disruption caused by the Great Recession. Recent developments such as declining rates of in-migration and an aging workforce are upending the model that defined the state's economy since the 1980s – consistent population growth, increased productivity, and a more resilient economy than our competitors. The shift away from long-held assumptions of consistent growth will reshape the state's policies on job creation, tax policy, land use, social services, and other areas.

Highlights of the October 2014 Forecast

- The Granite State will add only a few hundred manufacturing jobs over the next five years. However, it is expected that Granite State manufacturing output will continue to increase in the forecast period as it has in the past five years.
- In the private services sector employment will increase by about 2.0 percent annually in the forecast period. The fastest rate of growth will occur in Professional and Business Services, followed by Leisure & Hospitality, and Education and Health Services employment.
- The New Hampshire real estate market has seen a return to normal (pre housing bubble) price appreciation according to state realtors. However, housing sales weakened in 2014. Foreclosure recordings continued to decline steadily over the past year. The state rental market remains strong, with rental costs increasing and vacancies remaining below 3 percent in most areas.

State, regional and national economic growth and job creation has been disappointing, even allowing for the worst recession in the post World War II period. The period 2003 to 2008 was recognized as an expansion, but job growth was only about 1% per year everywhere

(substantially less than 1% in New England). Real economic growth was less than 1% annually in New Hampshire and New England, and just over 1% per year in the rest of the country from 2008 to 2013. The Great Recession (and recovery period) of 2008 to 2013 saw a loss in total jobs everywhere. The forecast period looks better, but only moderately so. Real economic growth will hover around 2.5% annually over the next five years (2013 to 2018), while annual job growth never breaches 2% per year.

NEEP Forecast Summary Comparisons
Average Annual Rates of Growth October 2014 Forecast

	<u>Actual</u> 2003-2008	<u>Actual</u> 2008-2013	<u>Forecast</u> 2013-2018
Gross State Product			
GSP-New Hampshire	1.0	0.9	2.2
GSP-New England	1.7	0.7	2.4
GDP-United States	2.2	1.2	2.7
Total Non-Farm Jobs			
Jobs-New Hampshire	1.0	-0.3	1.4
Jobs-New England	0.6	-0.1	1.2
Jobs-United States	1.0	-0.1	1.7

Current Conditions

In December 2013 the Wall Street Journal named the Manchester-Nashua New Hampshire metro area the ninth richest in the country, with a median household income of \$69,089. Boston ranked 5th highest with a median household income of \$71,738. The authors of the report observed that the low poverty rate of 9.8 percent in the Manchester-Nashua area, compared to the 16 percent poverty rate nationally, also helped boost its ranking.

New Hampshire residents also rank third best among the states in financial security, even though 21 percent of the households in the state are living paycheck to paycheck. That 21 percent living in “liquid asset poverty” may sound high, but the national average is 44 percent according to the Corporation for Enterprise Development. The annual scorecard looks at how state residents are doing across 66 outcome measures of household and business conditions associated with a strong financial base. Vermont and North Dakota ranked ahead of New Hampshire in the study.

New Hampshire was ranked the fifth healthiest state in the country in the United Health Foundation’s 2013 America’s Health Rankings report. The state’s ranking was helped by a decline in cigarette smokers, a drop in cardiovascular deaths and improved high school graduation rates. Among the New England states, Vermont ranked second and Massachusetts fourth. In a separate study from the Trust for America’s Health and the Robert Wood Johnson Foundation, New Hampshire scored highest among the fifty states in term of controlling and preventing infectious disease.

Manufacturing

Manufacturing is the largest export sector in the New Hampshire economy, employing more people than the state's tourism sector. When looking at manufacturing in terms of the support it gives to Gross State Product from drawing in sales from outside of the state, manufacturing makes five times more of a contribution to the state economy than does tourism. There are about 2,000 manufacturing companies in the State of New Hampshire, employing more than 66,000 people and accounting for 15 percent of the state's Gross State Product.

GT Advance Technologies in Merrimack, New Hampshire had a multi-year contract with Apple to supply sapphire screens for products like the iPhone and iPad. Reportedly the technology is being used on Apple's new wristwatch. **UPDATE: GT Advanced Technologies filed for Chapter 11 bankruptcy protection on October 6, 2014. The company's stock price tumbled after the iPhone 6 release did not use screens manufactured by GT. Reportedly this would be the second-largest bankruptcy filing in New Hampshire history, behind only the 1988 Chapter 11 petition filed by Public Service of New Hampshire.**¹

A similar technology used by Saint Gobain Crystal in Milford, New Hampshire creates windshields, windows and doors used for military applications. The resultant industrial sapphire glass is thinner and 50 percent lighter than traditional bullet proof glass without reducing strength and performance. The windows are used in high mobility artillery rocket launchers and even in buildings to withstand the harsh elements of places like the deserts of the Middle East.

A small bioscience company is moving its headquarters to Salem, New Hampshire. Foxx Life Sciences makes filtrating and fluid management produces for the research, biotech and pharmaceutical markets and employs about 20 people.

Nanocomp Technologies in Merrimack, New Hampshire is planning to triple the size of its manufacturing facility and add 70 new jobs next year, and another 115 positions by 2018. The company produces carbon-based advanced materials and personnel armor for the Department of Defense, and will have 250 employees by the end of their planned expansion.

A joint effort between Safran Aerospace Composites and Albany Engineered Composites has led to the opening of a 300,000 square foot manufacturing plant in Rochester, New Hampshire. The facility produces advanced composite blades for aircraft engines and will expand to employ more than 400 people in the next half dozen years. In order to meet the demand of 30,000 aircraft engine blades annually the two companies partnered with Great Bay Community College to create an advanced composites manufacturing course to train new hires.

Mercury Systems Advanced Microelectronics opened a new facility in Hudson, New Hampshire, bringing 90 jobs to New Hampshire. The Chelmsford, Massachusetts based company provides processing systems, software and services for commercial, defense and intelligence operations. BAE Systems in Nashua is one of the firm's customers.

¹ Updated from NH Business Review, <http://www.nhbr.com/October-17-2014/Severe-liquidity-crisis-prompted-GTATs-bankruptcy/>

Airmar of Milford, New Hampshire opened a new 72,000 square foot facility and added 50 workers to its existing workforce of 200. The company makes marine sensor equipment used for a wide variety of applications such as fishing, navigation and meteorology. Although the company exports half of its product overseas it is committed to staying and producing product in New Hampshire, refusing a request a half dozen years ago by its largest customer to set up a manufacturing facility in China.

The Wire Belt Company, a Londonderry producer of stainless steel wired mesh conveyor belts, recently added 25 percent more floor space, with plans to hire additional workers. The company employs about 93 workers currently, and includes Sara Lee and Tyson Foods among its top clients.

In January 2014 the Gorham Paper and Tissue mill laid off up to 20 employees because of surging natural gas prices. The winter cold snap and constrained pipeline capacity caused natural gas prices to spike, driving paper production costs to the point where the mill had to shut down. However the mill is up and running again, employing more than 100 people in the Berlin, New Hampshire area.

On the other side of the North Country a company called Codet Inc., headquartered in Quebec, is planning to build an 11,500 square foot addition to its manufacturing facility in Colebrook, New Hampshire and will hire 25 new employees. Codet makes work wear apparel, and the expansion will be complete by the end of 2014. Another company in Colebrook which manufactures latex gloves, Tillotson Performance Polymers, will add 16 new jobs with the help of a \$300,000 grant from the Community Development Finance Authority.

Osram Sylvania closed its Manchester plant which made commercial high intensity lamps, moving the production to plants in Mexico and China. Almost 200 employees lost their jobs when the Osram plant closed this year.

Another 200 employees were let go at L-3 Warrior Systems in Londonderry in 2014, representing about 20 percent of the company's New Hampshire workforce. The company makes night vision and electro-optical equipment for military use, and blamed defense cutbacks for the layoffs.

Nationally, firearms sales have started to slow down, after a record year in 2012 and another sales spike in 2013. The cooling off in the nationwide gun market has resulted in Newington gun maker Sig Sauer to lay off more than 100 employees. The Sig Sauer layoffs come on the heels of an early July bankruptcy filing by Newport based Latva Machine, Inc., a long term supplier to the military of small arms components and components for the commercial firearm industry. Green Mountain Rifle Barrel in Conway cut its workforce from 200 to 100 over the last year.

Granite State manufacturing jobs declined at a -2.8 percent annual rate in the last five years (2008 to 2013). In the forecast period, New Hampshire manufacturing jobs will increase slowly to a 0.4 percent average gain each year. However, it is expected that Granite State manufacturing output will continue to increase much faster in the forecast period, as it has in the past five years.

Private Services

The Private Services sector of the New Hampshire economy accounts for 450,000 of New Hampshire's 630,000 non-farm jobs. Trade and Transportation employs 136,000, making it the largest major sector of private services, while the second largest sector, Education and Health Services, accounts for 115,000 New Hampshire jobs.

According to the Institute for New Hampshire Studies at Plymouth State University, the New Hampshire ski industry contributed \$1.15 billion to the state's economy in the 2012-13 season. That is a 25 percent increase from the \$910 million measured in the 2009-201 season. Even though the 2012-13 season set the record for economic impact it was only the fifth best year on record for skier visits.

The summer tourism season in New Hampshire has been mixed, varying by region of the state. The White Mountains region is reporting an increase in visitor spending, and an exceptionally good year, while the Seacoast area tourism businesses have reported a less-than-stellar season, probably due to fickle beach weather and a still-recovering economy.

In another sign that consumer confidence, and income, has rebounded from the Great Recession, Lakes Region boat retailers have reported increased sales in 2014, up by 20 percent from a year ago at some establishments. The boat sales business is still recovering from the worst year in the boating industry's modern history, the period 2006 to 2007, and it is still unlikely that the industry will ever return to the sales pace of the early 2000s.

A rebound in the construction industry has caused a local software company to hire 60 people, with plans to hire as many again in the next 12 months and double the size of its workforce. Newforma of Manchester is a privately held company, making computer programs that help manage the endless stream of paperwork generated in architect or engineering firms.

United Parcel Service and FedEx are expanding in Londonderry, near the Manchester Airport, bringing hundreds of jobs to the area. A new 600,000 square foot UPS logistics facility, developed in partnership with jet engine maker Pratt Whitney, will open in June 2015 and will serve as a centralized distribution center for Pratt & Whitney parts, tools and other supplies. The new 300,000 square foot FedEx Ground Center is expected to bring 500 jobs to the area, including truck driver and warehouse worker positions.

Comcast announced an expanded customer service center in Hudson, New Hampshire, which promises to bring 200 jobs by years end, with the potential for up to 600 jobs in future years. US Foods will be renovating a former Poland Springs building in Seabrook, New Hampshire, and move its operations from Peabody, Massachusetts. The new US Foods distribution center will create an estimated 150 new jobs and transfer 120 current workers from Massachusetts.

Private Service producing jobs grew at an annual rate of 0.4 percent over the last five years (2008 to 2013), after growing at an annual rate of 1.6 percent per year from 2003 to 2008. The rate of growth will increase to 1.9 percent annually in the forecast period. The fastest rate of

growth (3.6 percent) will occur in Professional and Business Services, followed by 2.0 percent annual growth in Leisure & Hospitality jobs, and 1.5 percent average annual growth in Education and Health Services jobs from 2013 to 2018.

Construction and Real Estate

New Hampshire home prices stopped falling in 2012, and have increased in the years 2013 and 2014. Sales also bottomed out in 2011 and started to gain ground in 2012, although sales have shown some weakness so far in 2014, declining by about 4 percent compared to 2013. Foreclosures in New Hampshire have dropped from 3,600 in 2012 to 2,700 in 2013, and will likely be under 2,300 in 2014 given current trends. The state rental market has remained strong over the last five years, with rents climbing above \$1,100 per month for a two bedroom apartment, and vacancy rates in most areas of the state below 3 percent.

Cash home sales in New Hampshire represented about 29 percent of all transactions in June 2014, compared to a national 33 percent, according to CoreLogic. Cash sales in New Hampshire were 35 percent in June 2013. Cash sales usually represent speculators buying market properties, in the hopes of selling those properties for profit at a future date. Prior to the housing crisis the cash sales share of total homes sales nationally averaged approximately 25 percent, with the peak occurring in January 2011 when cash sales made up 46.2 percent of total national home sales.

The construction industry currently employs 22,000 in New Hampshire. Construction employment in New Hampshire declined at an annual rate of -2.9 percent in the last five years (2008 to 2013). Growth in New Hampshire construction jobs will rebound in the five years of the forecast period to 1.1 percent annual growth, and housing permits will average about 6,000 per year over the forecast period.

Government

More than half of the state-issued tax credits for creating jobs in economic revitalization zones were awarded erroneously or lacked proper documentation, according to a State of New Hampshire audit released in June. Of the \$1.8 million earmarked for Economic Revitalization Zone and the Coos County Job Creation Tax Credit programs, almost \$900,000 was awarded with limited documentation and little follow up to make sure the award goals were achieved. The auditors found that lack of supervisory review and control put the program at risk of abuse.

Also earlier in the year a superior court decision that ruled the state Medicaid Enhancement Tax (MET) unconstitutional triggered a Standard & Poor's downgrading of New Hampshire's general obligation and state-guaranteed bonds. The MET (a tax levied on the hospitals operating in the state) raised about \$175 million from hospitals, with \$75 million going to the general fund, \$75 million to support Medicaid payments, and \$25 million given back to hospitals. However the state and the hospitals came to an agreement on restructuring the MET which will lower future state revenues, but will also stave off future court challenges.

According to a new study which examined state rainy day fund balances, New Hampshire has one of the least volatile state revenue streams. The Pew Charitable Trusts examined patterns of revenue and economic volatility across the 50 states in July 2014. Pew found New Hampshire state revenue picture to be one of the least volatile among states in the US. The US average state revenue volatility was 5.1% in the years 1994 to 2012; New Hampshire average state revenue volatility was 4.1%.²

New Hampshire is one of only six states nationwide without a fee schedule that would set limits on what health care providers could charge for workers compensation medical services. As a result, medical costs for workers compensation are higher in New Hampshire than any other New England state. For example, workers' compensation surgical procedures in New Hampshire are 83 percent more expensive than in other New England states. The Governor has responded by naming a task force to reform the workers compensation system in New Hampshire.

In a study from the National Center for Education Statistics, which compared test results among states and countries, New Hampshire ranked 10th internationally and fifth among the states in eighth grade mathematics test results. Students from South Korea were first, followed by Singapore, China, Hong Kong, Japan, and then the states of Massachusetts, Vermont, Minnesota, New Jersey and New Hampshire. In science, New Hampshire eighth-graders were ranked seventh internationally and third among the states. The science ranking was Singapore first, followed by Massachusetts, China, Vermont, South Korea, Japan and then New Hampshire.

One of New Hampshire's success stories is the conversion of the former Pease Air Force Base, closed in the early 1990's, into the Pease International Tradeport. Pease is recognized by the U.S. Department of Defense as one of the most successful military to civilian conversions in the country. As of early 2013, there were about 250 companies residing at the Tradeport, occupying more than 4.4 million square feet of office, research and industrial space and directly employing about 7,800 people. Teledyn DGO, a manufacturer of undersea cables used by Navy submarines and in undersea oil wells, expanded its operations at the Pease Tradeport. The company employs 260 currently, and will add 20 or more jobs in the next three months.

Conference Theme: The Road Ahead: Economic Development Challenges and Opportunities for New England

New Hampshire slipped again in the annual CNBC ranking of "America's top state for business" to a tie for 30th overall, compared to ranking 27th in 2013 and 19th in 2012. While the quality of life and education is rock solid, according to the survey, the cost of living and doing business is high and the state ranks among the worst for measures of infrastructure and transportation.

The 2014 small business climate survey done annually by Thumbtack.com ranked New Hampshire 19th out of the 38 states surveyed in overall business friendliness, a big drop from the state's number 3 ranking in the 2013 study. Last year New Hampshire was awarded A-plus

² <http://www.pewtrusts.org/en/research-and-analysis/reports/2014/07/15/building-state-rainy-day-funds-policies-to-harness-revenue>

scores in six of 10 categories, while the state only scored two A's this year – for “ease of starting a business” and for licensing.

While many of New Hampshire's economic indicators reflect the decades-long period of growth and prosperity that began in the 1970s, some measures of future prospects are less promising. This can be seen in an economic dashboard the Center developed to assist the Business and Industry Association of New Hampshire in its development of a strategic economic plan for the state.³ Each of the 50 indicators, or measure of some aspect of the state's economy, are compared to other states and placed into a broader category: healthcare, education and workforce, energy, infrastructure, etc.

³ Full report available at <http://www.nhpolicy.org/report/new-hampshireamp39s-economic-climate-key-indicators>

NH Economic Dashboard 2013		
Area	Indicator	NH Rank
WFHousing	Homeownership rates	2
Regulatory	Pollution Abatement / \$ Value Added	3
Cultural	Percent of tree cover urban areas	3
EdWorkFrc	High School grad rate	4
Cultural	Voter turnout rate	4
EdWorkFrc	Pct of pop in Science & Engineering workforce	5
EdWorkFrc	Pct w/Associates+	6
EdWorkFrc	Percent of children aged 3-4 in preschool	6
Fiscal	Public health/welfare spending per person in poverty	7
GrowthReten	Manufacturing Supercluster LQ	7
Fiscal	State Business Tax Climate Index	8
Energy	Consumption per Capita, Million BTU	8
Infrastructure	Transportation energy expenditures as percent of personal income	8
GrowthReten	VC Investment Dollars Per Capita 2011	8
Health	Percent Uninsured 2011	9
GrowthReten	R&D performed per \$GDP (%)	10
GrowthReten	Business Churn	12
Cultural	Domestic tourism spending per capita	13
GrowthReten	Manufacturing Contribution to Total Compensation	13
Cultural	Creative Economy Jobs Concentration	14
Health	2011 Age Adjusted Mortality Rates	15
Regulatory	Index of State Liability Systems	16
Cultural	Volunteering rate	19
Energy	State Energy Efficiency Rank	19
Regulatory	Percent of Mandated Health Benefits	20
Infrastructure	Pct. of state w/access to broadband speeds of 3mbps for downloads, 768 kbps for uploads	20
Infrastructure	Water infrastructure needs per capita	21
Regulatory	CEO grades for State Taxation and Regulation	22
GrowthReten	% of Jobs in Firms with 20 to 99 Employees	23
Fiscal	Public govt & admin per \$ Personal Income	24
EdWorkFrc	Rate of HS grads going to degree-granting institution	24
GrowthReten	Total Employment % Change 2007 to 2012	25
Energy	Expenditures per Capita, Dollars	26
WFHousing	Rent more than 30% of income	28
Health	Total Health Care Expenditures as a Percent of Gross State Product (GSP), 2010	32
WFHousing	Ratio Median Housing Price to Median Income	34
Energy	Natural Gas Prices in Dollars per mmbtu	34
Infrastructure	Portion of unacceptable rough roads	35
Health	State-specific Standardized Infection Ratios (SIRs):	36
Cultural	State spending on natural resources per capita	37
Fiscal	Top marginal corporate tax rate	38
Infrastructure	Percent of bridges deficient or obsolete	39
WFHousing	Owner costs more than 30% of Income	43
Fiscal	State debt per \$ Personal Income	45
Energy	Industrial Electric Prices	46
GrowthReten	Capital Investment Projects per 100,000 pop	46
Regulatory	Land Use Restriction	47
EdWorkFrc	Change in 35-44 y.o share of population, 2000 to 2010	48
Health	Average Family Premium per Enrolled Employee For Employer-Based Health Insurance	49
EdWorkFrc	Average student debt	50

In particular, the results of the dashboard suggest one new lens through which to analyze the state's strengths and weaknesses. Many of the indicators where New Hampshire excels – including homeownership rates, education levels, and size of the science and engineering workforce – reflect past or current conditions.

On the other hand, in more “future-oriented” measurements – average student debt, the change in the 35-to-44-year-old share of the population, housing costs, and the rate of college-going among high school graduates – New Hampshire fares quite poorly. These measures are directly linked to the state's ability to attract and retain young people and arm them with the skills needed to

compete for good jobs in coming years, and thus are of vital importance to the future of the state's economy and quality of life.

In the past, when considering economic development policies, New Hampshire has focused on those areas where we typically rank high in state-by-state surveys: the creation of a low-tax environment, with high quality of life measures, such as a clean environment, low poverty and low crime.

But in order to maintain a competitive advantage against other states, should policymakers here redirect their focus on areas where New Hampshire has typically fallen short? Those areas include healthcare and energy costs, spending on infrastructure such as roads, bridges and rail and spending on public higher education.

Will investments in these or other areas yield better returns on economic growth? The answer, for now, is unclear. But what is clear is that New Hampshire can no longer rely on the demographic trends that have propelled it to economic prosperity over the past three decades.

There is no single, simple response to this new set of circumstances; policymakers will have to weigh various options. These include investing in human capital (an area where we rank relatively high, as measured by educational attainment), redesigning the state's tax structure (where New Hampshire enjoys one of the lowest per-capita tax collection rates in the country but maintains high corporate taxes), or investing in improved infrastructure and transportation (an area in which the state ranks relatively poorly). The likely return-on-investment of these and other options should be part of that decision-making process as well.

Dennis Delay
Economist
New Hampshire Center for Public Policy Studies
One Eagle Square, Suite 510
Concord, New Hampshire 03301-4903
phone: (603) 226-2500
fax: (603) 226-3676
ddelay@nhpolicy.org