



Employment SECURITY

32 SOUTH MAIN STREET
CONCORD, NEW HAMPSHIRE 03301-4857

RICHARD S. BROTHERS, COMMISSIONER
DARRELL L. GATES, DEPUTY COMMISSIONER

November 2006

It is necessary, periodically, to step back and take stock of the New Hampshire economy, and to consider the questions, "Where are we?" and "Where are we going?"

Such analysis is important for a number of reasons. Elected officials need to establish workforce and development policies and goals that are appropriate for New Hampshire conditions. Industrial developers and local planning boards are concerned with the timing and types of development planned for their communities. Workforce investment professionals desire to know which occupations and skills are essential to meet the labor needs of New Hampshire's employers now and in the future. Business people, as they make decisions about where to expand and invest, must be confident that the emerging labor supply will meet their needs. Educational curriculum planners strive to design courses that are relevant and deliver the knowledge and skills required by current and future workers. Individuals want information that will help them to choose new careers or to refresh or transform their skills to meet the changing demands of their jobs or the job market.

To fill these needs, New Hampshire Department of Employment Security and its Economic and Labor Market Information Bureau offer this examination of the New Hampshire economy. It provides detailed state economic analysis that is intended to inform workforce decisions.

I trust that you will find this publication both informative and useful as the people of New Hampshire look forward, striving to choose workforce development strategies that will fulfill the goals of both workers and businesses.

Sincerely,

Richard S. Brothers
Commissioner

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Looking Forward

Preparing for the future New Hampshire economy

Prepared by
Peter S. Bartlett, *Economist*
Anita Josten, *Research Analyst*



State of New Hampshire
John H. Lynch, Governor

New Hampshire Employment Security
Richard S. Brothers, Commissioner
Darrell L. Gates, Deputy Commissioner

Economic & Labor Market Information Bureau
George Nazer, Director
Bruce DeMay, Assistant Director

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The following New Hampshire Employment Security staff were instrumental in the preparation of this report:

Economic and Labor Market Information Bureau

Donald Kelley, *Research Analyst*
Elisabeth Picard, *Labor Market Analyst*
Amy Bergquist, *Labor Market Analyst*
Elisabeth Richardson, *Program Assistant*
David Bernabei, *Statistical Clerk*

Reproduction Services

Douglas Hamer, *Supervisor of Reproduction*
Scott Koblich, *Digital Press Operator*

For further information contact:

Peter Bartlett at (603) 228-4122, pbartlett@nhes.state.nh.us

Economic and Labor Market Information Bureau
New Hampshire Employment Security
32 South Main Street
Concord, NH 03301

Preface

This report provides a mid-year look at the New Hampshire economy. The detailed state economic analysis that follows is intended to inform workforce-development policy and investment decisions by the governor, the legislature, the New Hampshire state workforce investment board, local workforce investment advisory groups, and additional partners including community colleges, economic development organizations, and other workforce development interest groups. The information that is contained here will also be useful to business people or private individuals who have a stake in the New Hampshire economy, whether they are involved in business or career planning, or in general economic research and analysis.

The analysis includes economic trend indicators such as estimates of jobs by industry and resident labor force levels, and measures of unemployment. Unemployment is described in terms of the occupational and demographic characteristics of the unemployed. Industry location quotients suggest which industries are likely to thrive in the New Hampshire economy and which are not. Occupational employment projections and skills-based employment projections predict the future staffing needs of New Hampshire employers. State wage trends in covered employment are compared to regional and national trends. These comparative wages and wage trends are important for both businesses and workers to consider when making relocation decisions.

The primary source of the data and analysis contained in the report is the body of work produced by the Economic and Labor Market Information Bureau of the New Hampshire Department of Employment Security either under contract with the Bureau of Labor Statistics of U.S. Department of Labor or with the support of grant monies from the Employment and Training Administration of the U.S. Department of Labor.

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Executive Summary

New Hampshire Economy in Review

The New Hampshire economy has continued to grow moderately during 2006.

- The unemployment rate remains below the national average.
- Resident labor force growth in the state has nearly kept pace with growth of the U.S. labor force.
- Nonfarm jobs in New Hampshire have accrued at about the same rate as for the nation. Growth in private service-providing industry employment has more than offset losses in goods-producing jobs. Manufacturing continues to be the sector that drags down the goods-producing sector.
- After falling for three years, counts of initial and continued claims for unemployment compensation appear to have flattened off at levels about double their prerecession counts.
- Housing permits in New Hampshire have declined, a symptom of the slowing real estate market.

Many of the forces that determine the success of the New Hampshire economy are external. World events and, closer to home, a struggling Massachusetts economy may dampen growth in New Hampshire.

Industry Trends in Nonfarm Employment

Nonfarm job growth slowed from second quarter 2005 to second quarter 2006.

- Total nonfarm jobs growth, private and government, slowed from 1.3 percent to 1.0 percent.
- Manufacturing losses tapered slightly (from -1.1 percent to -0.5 percent), while the balance of goods-producing industries gained jobs.
- Private service-providing industries growth was up from a 1.7 percent job gain in 2005 tallying 2.2 percent more jobs in 2006.

Measuring Unemployment in New Hampshire

By gaining an understanding of the characteristics of New Hampshire's unemployed, workforce agencies can target their resources where they are most needed.

- Though the state's unemployment rate remains well below the U.S. rate, the gap has been shrinking as the state rate has remained flat while the national rate continues to diminish.
- Unemployment compensation insurance benefits filers represent just a portion of the total unemployed (about 35 percent in 2004).
- More men than women file claims for unemployment compensation insurance benefits.
- Seasonal layoffs from industries such as Construction add significantly to annual claimant totals.
- Workers younger than 25 years old make up 32 percent of the total unemployed but less than 6 percent of claimants.
- Workers laid off from the Mining, Construction, Manufacturing, and Administrative support, waste management, and remediation services industry sectors have relatively high levels of claims filed compared to the average number of covered jobs in those sectors.
- Just over 25 percent of claimants in the second quarter of 2006 had filed for more than fifteen weeks of benefits. The largest number of these long-term claimants had worked in production occupations.

Industry Location Quotients and Industry Distribution of Private Jobs

New Hampshire has competitive advantages in some industries. Location quotients can provide clues to identify industries that are a good fit for the state's economy. A location quotient compares an industry's employment share in New Hampshire to its share in the U.S. economy. A location quotient above 1.0 means that that industry's concentration is higher in New Hampshire than in the nation. A high location quotient is an indicator that an industry may have a some competitive advantage in New Hampshire such as a lack of sales tax for the Retail trade industry sector or a workforce with a high degree of the required technical knowledge and skills for the Computer and electronic product manufacturing industry subsector.

- New Hampshire industry subsectors with the highest location quotients are Computer and electronic product manufacturing, Nonstore retailers, Electrical equipment and appliance manufacturing, Electronic markets and agents and brokers, and Scenic and sightseeing transportation.
- The industry subsectors with the largest levels of private employment in New Hampshire are in the service-providing area: Food services and drinking places, Professional and technical services, Ambulatory healthcare services, and Hospitals. The largest goods-producing subsectors come in seventh and eighth place – Computer and electronic product manufacturing and Specialty trade contractors, respectively.

Occupational Employment Projections and Industry Staffing Patterns

New Hampshire employment is projected to grow by 16.7 percent over the ten-year period from a base level in 2004 to 2014. As this growth takes place, different occupations will grow (or shrink) at different rates. An occupation's rate of change is governed, in part, by rises and declines of the industries that employ that occupation. Also impacting changes in occupational levels are changes in occupational staffing patterns within industries that result from changes in how the use of occupations evolves within each industry.

- The occupations expected to grow at the fastest rate are *Home health aides, Network systems and data communications analysts, Medical assistants, and Computer software engineers (applications)*. These reflect the rising demand for healthcare as the population ages and medical technology evolves and the continued need to increase productivity, to compete in the global marketplace, by using computers.
- Projected to add the most jobs are *Retail salespersons*, the largest occupation in the single largest industry sector in New Hampshire by employment (Retail trade), and *Registered nurses*, the largest occupation in the third largest and rapidly growing healthcare industry sector. The occupational group with the next largest net increases are in *Business operations specialists (all other)* and *Teacher assistants*.

New and Emerging Occupations

Timely information on new and emerging occupations is important to the ability of workforce and educational planners to develop curriculums that will prepare the New Hampshire workforce for the jobs of the future. It is not easy to define new and emerging occupations. Tracking them is even more difficult. When a new job title is written in on an employer survey form, it is often not easy to determine if this is a new name for something existing or something truly different. Does it fit an existing occupational classification or must a new one be developed to adequately describe it? Is it common enough to warrant classification or is it a one-of-a-kind?

- Possible new and emerging jobs that have appeared in recent New Hampshire surveys are: *Transfer/recycling center attendant, Accounts administrator or CORF (Comprehensive outpatient rehabilitation facility) coordinator, Adult in-home caretaker/day program staff, Mortgage loan closer/officer, Technology center coordinator, Healthcare specialist, Videoconferencing technician, Emergency medicine/emergency room physician, Warranty development manager/coordinator/specialist, and Animal rehabilitation specialist.*

Skills-based Employment Projections

New Hampshire workers will need certain skills, knowledge, and work activities to be successful in the job market. Skills-based employment projections add a new dimension to the New Hampshire 2004 to 2014 occupational projections, providing the information decision makers need to anticipate possible gaps in occupational competencies. Though referred to generically as “skills” these occupational competencies are subdivided into skills, knowledges, and work activities.

- The two skills projected to be most in demand in 2014 are *Reading comprehension* and *Active listening*. *Customer and personal service* and *English language* are the knowledges expected to be most important. *Establishing and maintaining personal relationships* and *Getting information needed to do the job* will be the two most important work activities in 2014. All of these competencies exemplify the continued importance of communication in the workplace.

New Hampshire employers will need to replace retiring workers in ever-increasing numbers over the next decade. The arrival of “baby boomers” at retirement age intensifies the importance of replacing lost skills. A replacement index shows the proportion of occupational competencies that are expected to be lost because workers will leave their current occupations.

- Occupational competencies with the highest replacement indexes for 2014 are Skills – *Operation monitoring and Repairing*; Knowledges – *Production and processing and Clerical*; and Work activities – *Inspecting equipment, structures, or materials and Handling and moving objects*. Many of these competencies are found in Manufacturing. Even though Manufacturing is expected to decline the skills of retiring experienced workers will have to be replaced.

Business Employment Dynamics

We may be able to better understand the dynamics of the New Hampshire economy by examining “gross” gains and losses in industry employment. Most measures of employment change mask the gross job gains and losses behind a net gain or loss. Business employment dynamics (BED) reveals the job churning that occurs within the net change.

- Highly seasonal industries such as Retail trade and Accommodation and food services exhibit a lot of churning over the course of a year.
- Although total employment levels in Manufacturing and Healthcare and social assistance show less net change, there is still a significant amount of job churning.

New Hampshire Population Trends

Though New Hampshire’s population has been growing slightly faster than the U.S. and much faster than New England, it has the sixth highest median age among U.S. states.

- Young mobile workers tend to be drawn to mega-urban centers such as Boston where opportunities for career openings and education and participation in a youth culture abound. They move to New Hampshire when they are older and ready to settle down in the suburbs.

Average Annual Pay in New Hampshire

New Hampshire average pay for all private covered jobs in 2005 was slightly above the U.S. level and significantly below the New England level, based on covered employment and wages data from the Quarterly Covered Employment and Wages program. New England average pay tends to be skewed by the two high-wage states: Massachusetts, representing almost half of the region's employment, and Connecticut, representing almost a quarter. Lower wages in New Hampshire often make expanding here attractive to Massachusetts businesses.

- New Hampshire average annual pay surpassed the U.S. average in 2002 and has widened the gap slightly each year since. Granite State wages have also gained on New England since 2001.
- Manufacturing pay in New Hampshire, however, was on average 4.6 percent higher than in New England and 41.4 percent higher than in the U.S. in 2005.
- Average annual goods-producing industry pay in New Hampshire was 91.6 percent of New England's average in 2005, but 107.7 percent of U.S. average pay.
- New Hampshire annual average pay in service-providing industries was just 85.0 percent of the average for New England.
- New Hampshire's average annual pay for all private industries compares favorably to U.S. pay, but falls well short in comparison to New England.

New Hampshire Economy in Review

Key Economic Indicators

A year ago in October, we celebrated the rescue of the Portsmouth Naval Shipyard from the threatened BRAC chopping block. That same month hurricanes struck the U.S. Gulf coast sending economic jitters across the country. Closer to home, flooding from a record October storm closed roads across the state and devastated the towns along the way. Record spring rains brought more flooding and delayed planting of New Hampshire crops, slowed the start of the warm weather tourist season, held up the start of some construction projects, and made New Hampshire residents wonder if they were witnessing a permanent climate change. Rising prices of petroleum started to affect automobile purchase decisions, and raised concerns about whether New Hampshire residents would be able to afford to keep their homes heated through the coming winter.

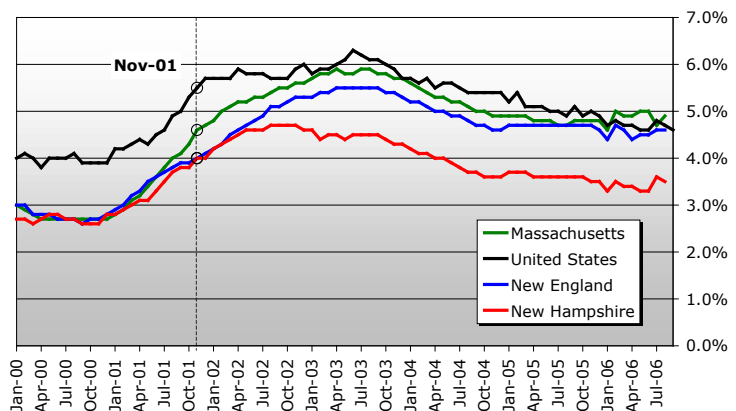
The spring also saw the closing of two mainstays of the north country economy. The closing of the paperboard mill in Groveton and the Burgess Pulp mill in Berlin marked another setback to the Pulp and paper industry in North America.

It has been a tumultuous period. But, in spite of this, through the first eight months of 2006, the New Hampshire economy continued to recover from the most recent national recession, which officially ended in November 2001. However, recent indicators may suggest a moderating rate of growth.

Unemployment Rate

New Hampshire's unemployment rate has consistently been below the national rate, in recent years ranging from a point to a point and a half lower. The state's rate seems to have leveled off, over the last two years, while the national rate continues to fall. Of additional concern is that the region's rate has leveled off some two points higher than its prerecession low. New England's unemployment has leveled, in large part because the Massachusetts rate has been higher than last year in five out of the

New Hampshire and New England unemployment rates have both leveled off while the U.S. rate continues to fall.



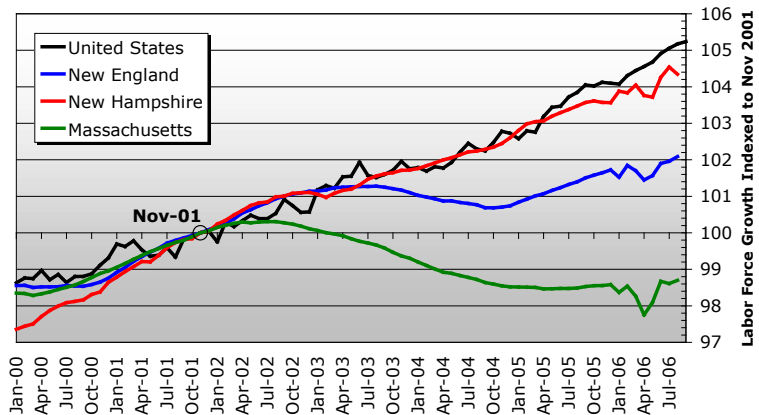
Looking Forward - Preparing for the future New Hampshire economy

first eight months of 2006. Since Massachusetts represents about half of the New England economy, it can be a major drag on the region's economic vigor. Much of New Hampshire's economic wellbeing radiates northward from Boston. When the Bay State economy is in decline, we have to be concerned about the potential spill-over to the New Hampshire economy.

Labor Force

New Hampshire's resident labor force, seasonally adjusted, has grown by 4.6 percent in the nearly five years since the end of the recession, from November 2001 to September 2006. This was slower than the U.S. labor force growth, over the same time period, of more than five percent. New England's labor force grew by just two percent, pulled down by a loss in Massachusetts of nearly one percent.

Since end of last U.S. recession, N.H. has trailed U.S. labor force growth, N.E. has lagged far behind.

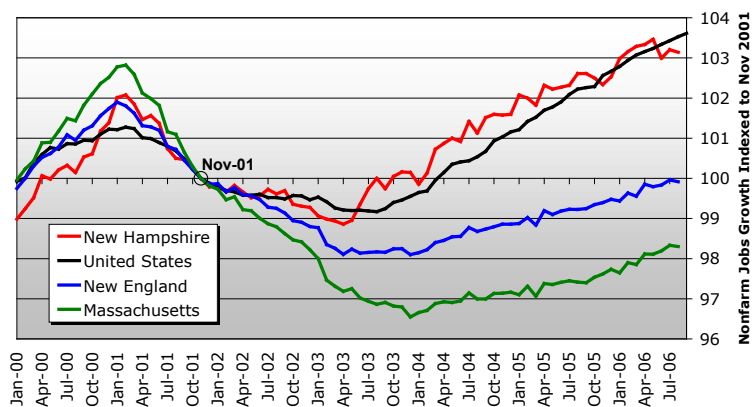


Job Growth

Payroll job growth in New Hampshire, as measured by seasonally adjusted nonfarm jobs estimates, has nearly kept pace with U.S. growth, though state job gains seem to have slowed in recent months.

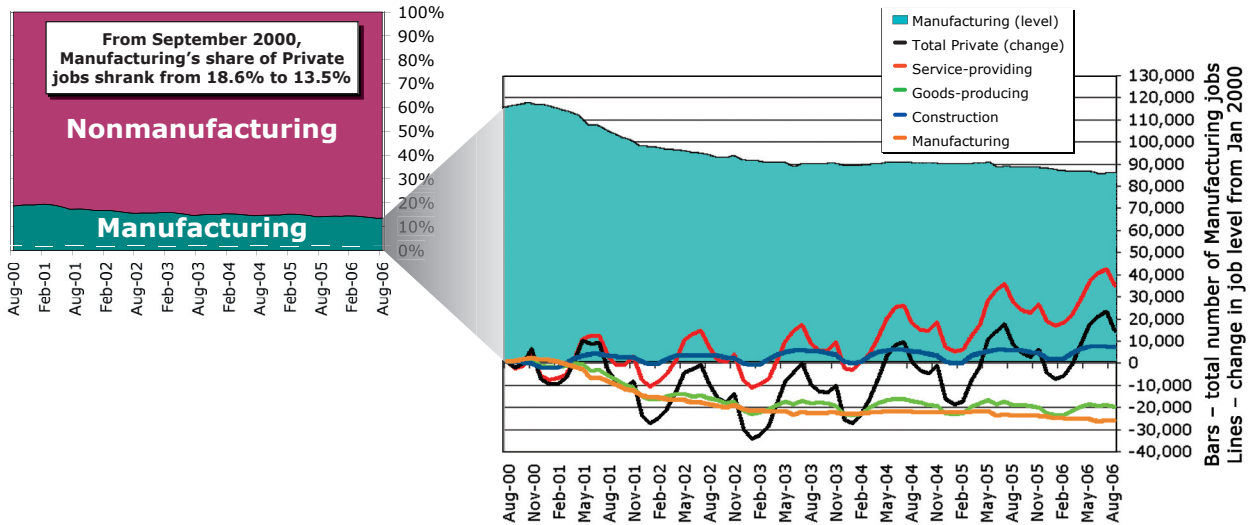
New Hampshire jobs growth of just over three percent since the end of the recession seems somewhat less than robust. New England, however, has yet to return to November 2001 jobs levels and is still 130 thousand jobs shy of its January 2001 peak. As with the unemployment rate, Massachusetts lags far behind in job recovery.

N.H. has matched U.S. nonfarm job growth, since the end of the last U.S. recession (Nov 01), while N.E. lags behind.



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Manufacturing's decline has been offset by growth in Construction and service-providing industries.



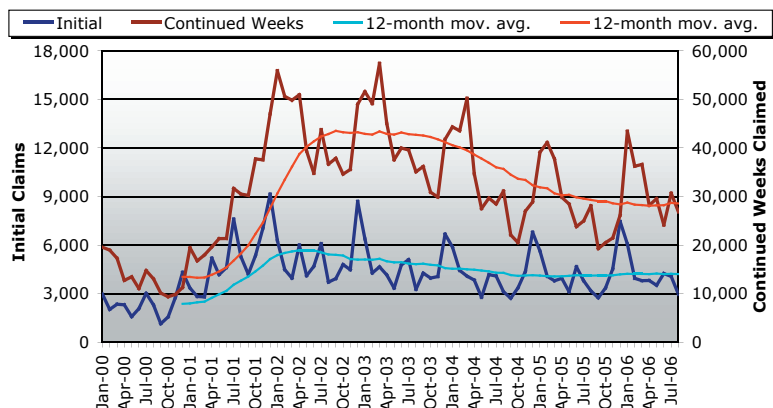
Private Nonfarm Jobs Change

New Hampshire's growth in private nonfarm jobs has been in the service-providing area. Estimates of service-providing industries, not seasonally adjusted, found gains of nearly 34,000 jobs, from August 2000, while total private jobs grew by only 14,000. The difference is a loss of nearly 20,000 jobs in goods-producing industries. Construction, the state's second largest goods-producing sector, gained 6,400 jobs, but Manufacturing lost more than 26,000. The Manufacturing losses coupled with the gains in service-providing industries, from August 2000 to August 2006, have diminished Manufacturing's share of total private jobs in New Hampshire from 18.6 percent to 13.5 percent.

Unemployment Compensation Claims

Monthly initial claims and continued weeks claimed for unemployment compensation benefits in New Hampshire during 2006 have been nearly flat though seeming to turn slightly upward in recent months.

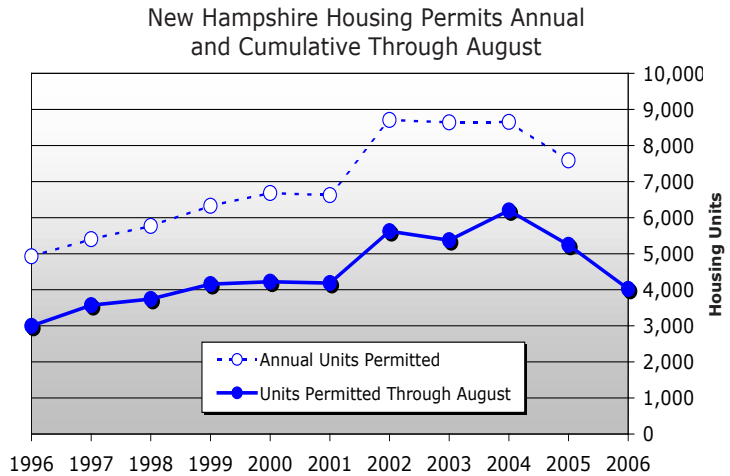
Both initial claims and continued weeks claimed have shown a slight uptick in the last 12 months in New Hampshire.



Housing Permits

There are signs that rising interest rates have finally begun to take a toll on real estate activity in New Hampshire and across the country. What had been a sellers' market has flipped to a buyers' market. Houses are staying on the market longer and prices are flattening out.

Total housing permits (a unit count which tallies single family homes and each individual unit in buildings with multiple units) in New Hampshire, cumulative through August, have dropped sharply in each of the last two years.¹ This has a number of implications to the New Hampshire economy since permits anticipate construction activity.



The impacts of creating new housing go well beyond the Construction industry. Consumer spending is an important driver of the economy. Each new home represents a significant amount of consumer spending. With the construction of each new house or residential unit, tens of thousands of dollars are spent on building materials, appliances, furniture and household furnishings, and landscaping. Payment of real estate commissions, engineering and architectural fees, and municipal fees also contribute to the economy. The completion of a new house creates jobs for moving companies. It also starts a chain reaction that may allow several families to upgrade their housing. The buyers move into their new home, their former residence becomes available for another family, and so on.

In the current recovery, growing real estate values have also stimulated consumer spending. This stimulation has been both direct and indirect. Consumers have directly used the value in their homes to obtain home equity loans with which to purchase consumer goods. Indirectly, rising real estate values, have improved consumers' net worth and feelings of financial well-being, making them confident in their ability to afford to purchase more goods and services.

¹ Housing Units Authorized By Building Permits; "Table 2 - United States, Region, Division And State (Unadjusted Data)." Accessed October 28, 2006. <www.census.gov/const/www/C40/table2.html>.

The Outlook

The New Hampshire economy does not operate by itself. Its success is largely dependent on the success of the New England region (which is highly influenced by Massachusetts), the U.S., and the greater global economy. So the state's near-term outlook cannot be separated from regional, national, and global trends and events.

Consumer spending is the key to continued economic growth of New Hampshire and the nation. Consumers have been confronted with many shocks in the last year that raise questions about whether economic growth can continue into the coming months. So far the current recovery has been able to weather all of the storms. A year ago, hurricanes that severely damaged homes, businesses, and infrastructure in the U.S. Gulf Coast also threatened the national energy supply. Severe gasoline price increases throughout most of the year raised auto fuel economy concerns and hit domestic car makers hard. Gas prices dropped back in the fall, however. That and ideal weather, for a change, gave the New Hampshire tourism industry a welcome autumn boost.

The Federal Reserve has signaled an end to its steadily ratcheting up of interest rates. This has allayed fears of real estate bubbles bursting catastrophically. A soft landing of flat or slightly lower real estate prices and values now seems more likely. However, any lowering of real estate values has the potential to suppress consumer spending.

International events have the capacity to cause consumer jitters. Continued setbacks in Iraq or Afghanistan, additional provocative actions by North Korea or Iran, a major attack by terrorists carried out at home or abroad, any of these possibilities has the potential to derail the recovery.

Though most of the forces that will shape our economy are outside our control, we do know that New Hampshire is well positioned in the region as a lower cost alternative to expensive metropolitan regions to the south. Its workforce is skilled and well educated. Its postsecondary schools are able to respond to changing workforce needs. New Hampshire residents are highly entrepreneurial and flexible enough to take advantage of whatever opportunities are presented in an ever-changing global economy.

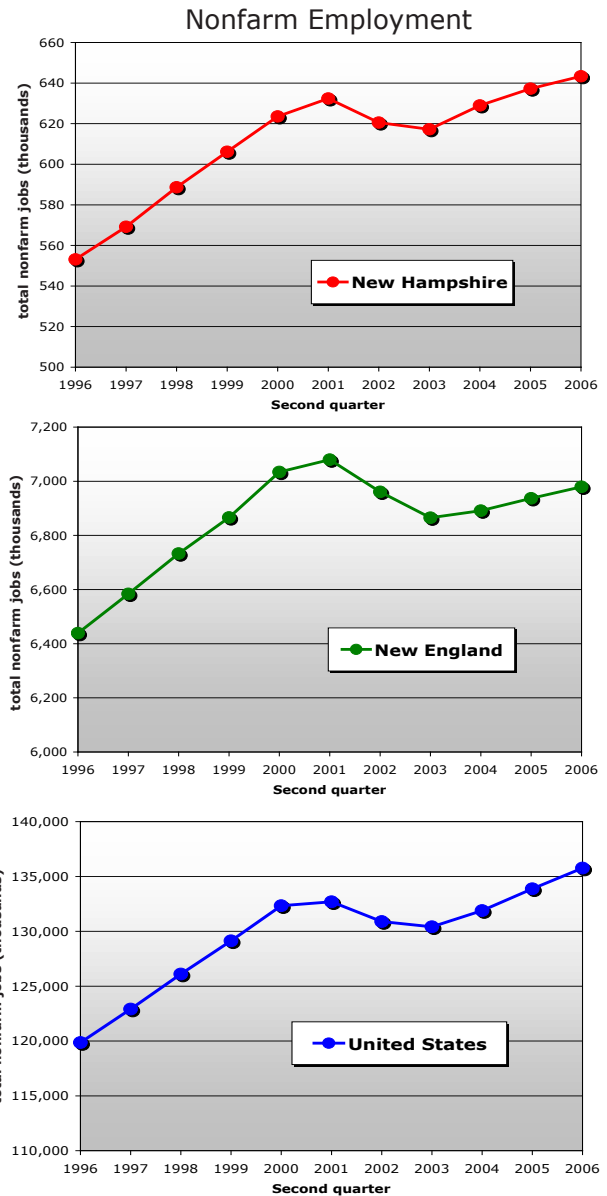
Industry Trends in Nonfarm Employment

Total Employment in All Nonfarm Industries, Private and Government

New Hampshire's growth in jobs slowed from 2005 to 2006 using second quarter nonfarm estimates as a yardstick. The percent increase fell to 1.0 percent compared to 1.3 percent from second quarter 2004 to 2005. This was slower than the 1.9 percent growth from second quarter 2003 to 2004.

Steady, long-term growth was interrupted in 2001 by a national recession. Comparing second quarter data, the average not seasonally adjusted total nonfarm employment jobs count peaked in 2001 and hit bottom in 2003 for New Hampshire, New England, and the U.S. Each geography differed in the depth of the valley and the strength of the ensuing recovery. The depth of the jobs decline was shallowest for the U.S. which dropped 1.7 percent of its second quarter jobs from peak to trough. New England, over the same period, lost three percent of its nonfarm jobs. New England statistics are dominated by Massachusetts which provides nearly half of the region's jobs. New Hampshire, which provides around 9 percent of New England jobs, saw a drop of 2.4 percent.

New Hampshire was quicker out of the blocks in recovery than the region or the U.S., according to nonfarm job estimates, but its second quarter job growth has slowed in each successive year in 2005 and 2006. New Hampshire and the U.S. both exceeded their previous second quarter high (2001) in 2005, while New England still lags behind its 2001 peak.



New Hampshire got out of the blocks quickly in recovery

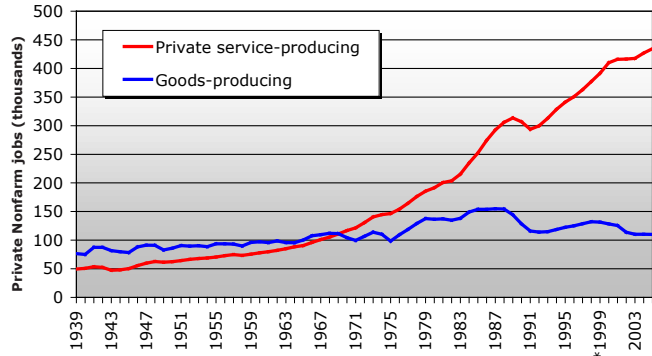
Q2 to Q2 Change	NH	NE	U.S.
2003 to 2004	1.9%	0.4%	1.1%
2004 to 2005	1.3%	0.7%	1.5%
2005 to 2006	1.0%	0.6%	1.4%

Goods-Producing Industries

Goods-producing industries in New Hampshire, as in most states, are dominated by Manufacturing, though in some states, Agriculture and Mining industries have a much more significant presence than in New Hampshire. Construction industry jobs, more vulnerable to the business cycle, generally have shown a long-term upward trend, expanding as population growth increases the demand for new residential, commercial, and industrial buildings, schools, and highway infrastructure.

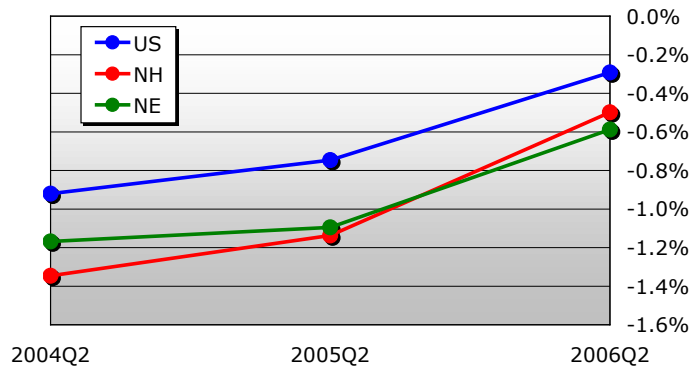
The long-term decline of goods-producing industries has been almost entirely driven by Manufacturing industries. The two major factors in the decline have been increasing automation and the moving of low-skills tasks to areas where the cost of labor is cheaper. Manufacturing declines since 2003 have slowed in the state, the region, and the U.S. as the current recovery has progressed.

Dominant until 1969, goods-producing industries jobs counts have turned downward in recent decades. Service-providing industries have steadily expanded employment.

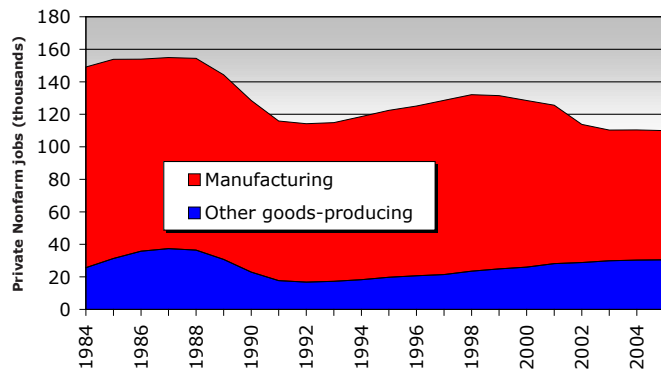


*Up to 1999, numbers were based on Standard Industrial Classification (SIC) industries

Manufacturing - 2nd Quarter to 2nd Quarter Change



Manufacturing reached its peak in 1984. Its decline since then has produced a long-term decline in goods-producing industries.

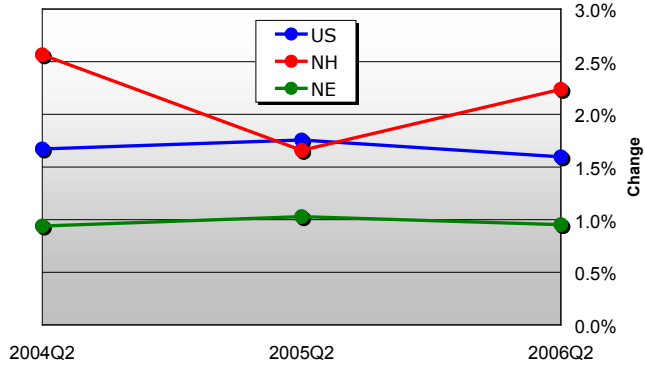


* Prior to 2000, numbers are based on Standard Industrial Classification (SIC) industries.

Private Service-Providing Industries

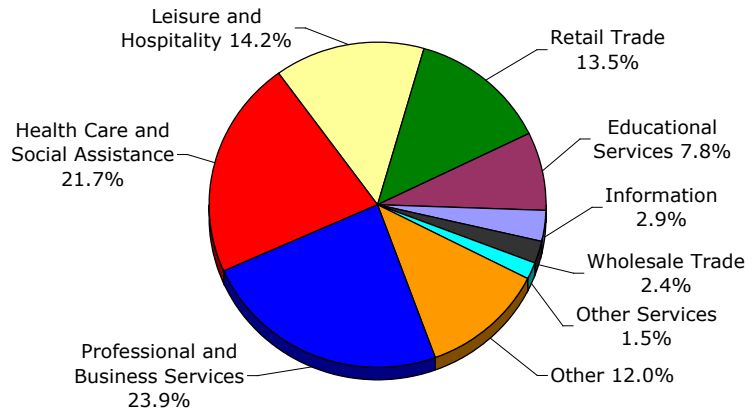
Service-providing industries accounted for more than 80 percent of New Hampshire's jobs in private industry in the second quarter of 2006. The number of private service-providing jobs in New Hampshire increased at a faster rate relative to the U.S. from 2003 to 2006. The state's growth in the service sector was more than double that for the New England region.

Service-providing - 2nd Quarter to 2nd Quarter Change



Of the total growth within service-providing industries, Professional and business services accounted for nearly a quarter of the average increase from second quarter 2003 to second quarter 2006. Health care and social assistance represented more than 20 percent of the jobs added and Leisure and hospitality, Retail trade around 14 percent each.

Share of Average 2nd Quarter Service-providing Growth 2003-2006



Measuring Unemployment in New Hampshire

One way to gauge the health of an economy is to look at how difficult it is for an individual to find a job. Measures of unemployment can indicate the likelihood of success when individuals are seeking employment and, conversely, the likelihood of success for employers when seeking workers.

Unemployment Rate

New Hampshire's unemployment rate has been consistently lower than the average for the nation. The New Hampshire economy is diverse and does not depend on a small number of dominant employers or industries. Manufacturing, Construction, Health Care, Finance and insurance, and Retail trade each provide significant numbers of jobs in New Hampshire. A broad mix of employers and industries helps New Hampshire to weather economic storms and to tack quickly when the winds change.

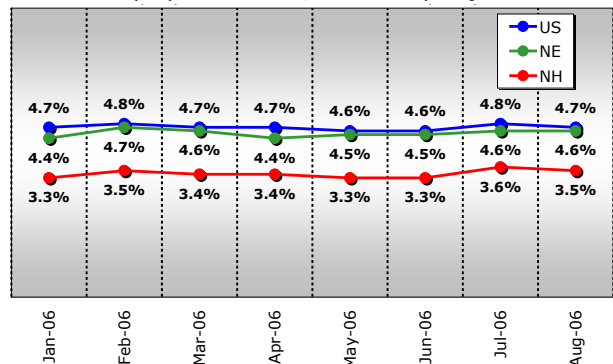
Seasonally Adjusted Unemployment Rates, New England States - August 2006

State	Rate
New Hampshire	3.5%
Vermont	3.7%
Connecticut	4.5%
Maine	4.7%
Massachusetts	4.9%
Rhode Island	5.6%

The seasonally adjusted unemployment rate for New Hampshire stood at 3.5 percent in August 2006 (tied with Alabama, Montana, and North Dakota for 10th lowest in the nation). Among the six New England states, New Hampshire's rate was the lowest. The national seasonally adjusted unemployment rate for August 2006 was 4.7 percent. The unemployment rate is calculated from labor force estimates which are derived from Current Population Survey (CPS)² data. The CPS surveys a sample of U.S. households each month on the employment status of household members.

There has been very little change through the first eight months of 2006, in New England's seasonally adjusted unemployment rate. The New Hampshire rate, although stable, showed slightly more variability, changing from 3.3 to 3.6 percent from June to July. All other monthly values fell between those rates. On balance, the state's unemployment rate has been just slightly below the rate for the same period in 2005.

New Hampshire, New England and U.S. Unemployment Rates, Seasonally Adjusted

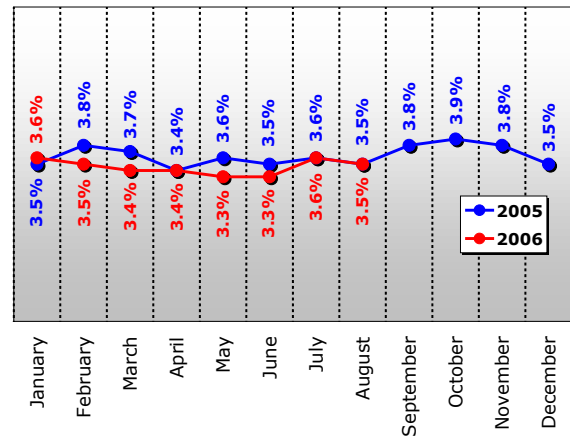


² The Current Population Survey is a monthly survey of about 50,000 households conducted by BLS and is used as the primary source of information on the labor force characteristics of the U.S. population. <www.census.gov/cps/>.

Unemployment Compensation Claims

There are several ways people become unemployed. “Entrants and reentrants” are those who are seeking a full-time job for the first time or returning to the labor force after an absence. Of those described as “on temporary layoff,” some are laid off at the same time each year due to seasonal factors such as the asphalt plants not operating through the winter or schools being closed for the summer. Others may be out of work due to a slackening of orders, but are expecting to be recalled when orders pick up again. “Job losers” may have lost their jobs permanently because their employer has changed the way they operate by adopting new technology or moving production somewhere else where labor or transportation costs are lower. Competition may have put their employer out of business or forced production cut backs. “Job leavers” have left a job voluntarily perhaps to pursue new opportunities. The key is, all persons in these categories are not working, but looking for work.

New Hampshire Unemployment Rate, Seasonally Adjusted

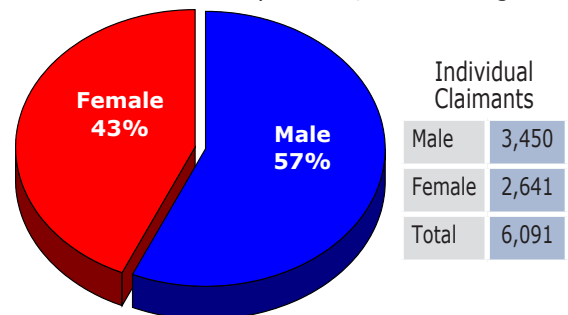


Claimants filing for unemployment insurance benefits are a relatively small subset (about 35 percent in 2005³) of the total unemployment. There are many reasons for this. For the most part, entrants and reentrants are not eligible for unemployment compensation because they lack “qualifying wages” from recent employment. Typically job leavers do not qualify, because unemployment compensation law generally requires that beneficiaries have lost their job through no fault of their own. Most job losers and those on temporary layoff do qualify for unemployment compensation, though some of them may choose not to file.

Claimants by Gender

The average number of male claimants for unemployment benefits exceeded the average number of female claimants by more than 700 during second quarter 2006. Claimants laid off from Manufacturing were predominantly male. Men outnumbered women in this industry sector by roughly two to one. Construction industry sector claimants leaned even more heavily toward men, outnumbering women by approximately six to one.

Total Claimants by Gender, 2005 Average



³Adjusted for commuter claims.

Seasonality in Claimant Data

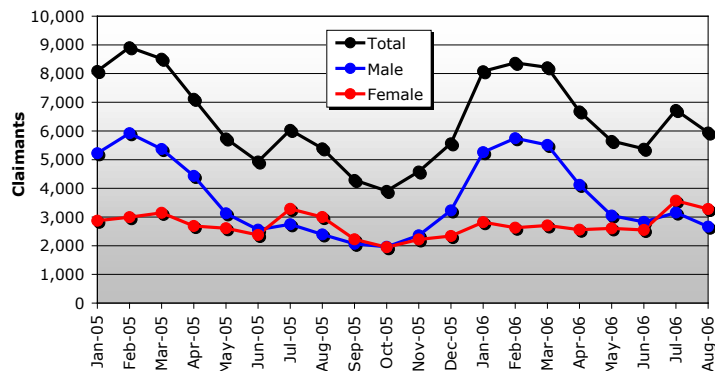
Counts of male and female claimants show distinctly different seasonal patterns. Male claimant numbers exceed female claimant numbers for most of the year. Typically, the gender share of claimants reverses for the warm weather months of the third quarter when, by and large, Construction workers have returned to work. On average though, male claimants outnumber female claimants each year as they did in 2005 (by more than 800).

Industry Patterns

Industry patterns help to explain these gender patterns.

New Hampshire's claimants include workers from industries that are seasonal in nature, such as Construction. Since male workers dominate jobs in Construction industries, it follows that during the months of the year when Construction workers make up a large portion of the claimant population, the male share of the total claimants in New Hampshire will grow. During the months of the year when most Construction workers are employed, male and female claimant numbers are almost equal.

Seasonality in unemployment insurance claims - claims counts for males fluctuate more than females.

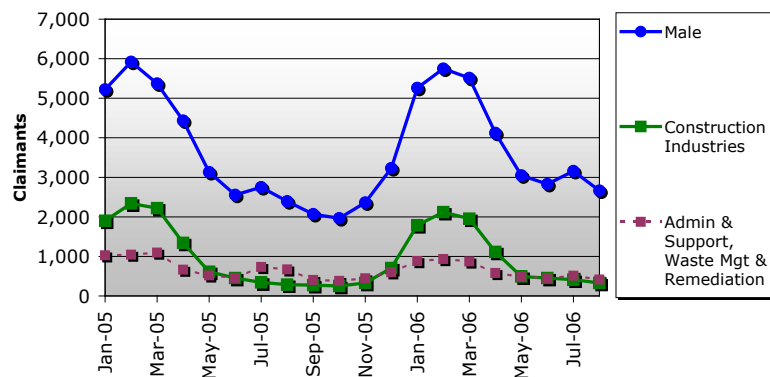


Construction industry claimants explain most of the seasonality in the male claimant population as the two lines nearly parallel one another. However, the Administrative and support, waste management and remediation services industry sector also adds to the seasonal bumps in male unemployment compensation claims. Included in this sector are Landscaping services.

Though representing just a fraction of the number of jobs in the Construction sector, it also exhibits a clear seasonal pattern and is dominated by male workers.

Female claims counts tend to have much less seasonality. However, they do show a relationship to Manufacturing which exhibits a distinct though much less extreme seasonal

Seasonality in claimants counts for males reflects patterns for industries typically dominated by male workers — Construction and Admin support, waste mgt & remediation.



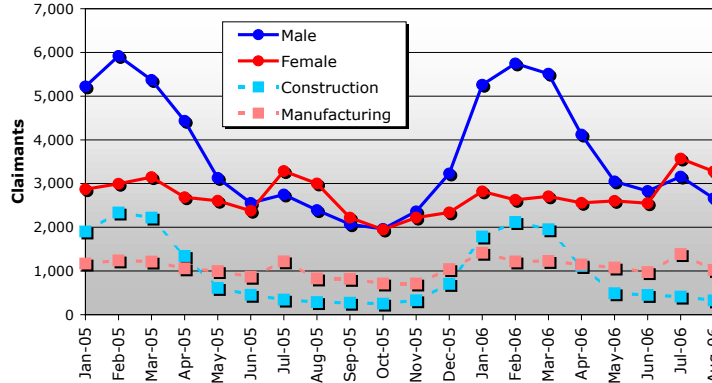
pattern in New Hampshire claims activity. Its mid-summer and mid-winter bumps seem to coincide with seasonal upticks in female claims activity.

Occupational Patterns

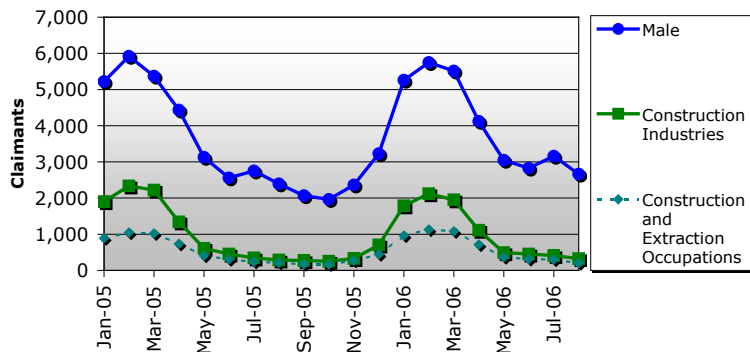
Many occupations also show seasonal patterns. These largely reflect industry staffing patterns.

The New Hampshire Construction industry sector, for example, is a major employer of workers in *Construction and extraction* occupations. Claimants in these occupations show up in large numbers when the industry sector produces large numbers of claimants. But the Construction industry also employs workers in *Office and administrative support, Management, and Sales and related* occupations, among others. Therefore the fluctuations in claims from the industry sector extend much further than the *Construction and extraction* occupational group.

Seasonality in unemployment insurance claimant counts for females tracks more closely with Manufacturing fluctuations.



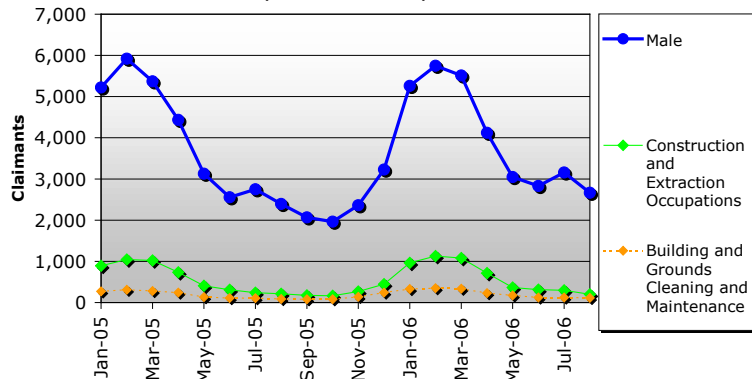
Seasonality in claimants counts for males corresponds to patterns in Construction industries and occupations - traditionally dominated by male workers.



Seasonal Change vs. Economic Change

Seasonal changes are readily observable and predictable. It is important to differentiate them from cyclical changes and structural changes. Cyclical changes are brought on by the “business cycle” of recession and recovery. Permanent changes in how businesses operate such as

Seasonality in claimant counts for males follow patterns in Buildings and grounds and Construction occupations — traditionally dominated by male workers.



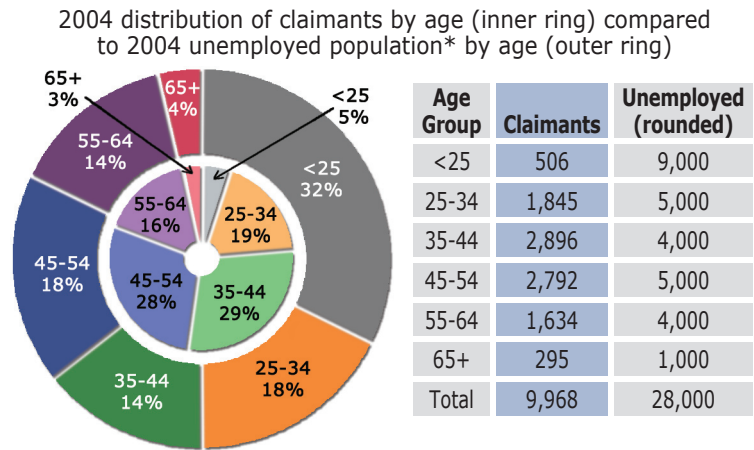
technological advancement or off-shoring are “structural” changes which forever alter the relationship between workers and their jobs. Some statistical time series such as unemployment rates and nonfarm employment estimates are “adjusted” to remove seasonal patterns and thus isolate the “economic” changes.

Age of Claimants

As previously discussed, claimants are a small portion of the universe of the unemployed. Many of the unemployed do not meet eligibility requirements, and some simply choose not to file. One result is that the age demographics of claimants differ greatly from those of the total unemployed population.

The most obvious difference is in the youngest group, those younger than 25 years old. They represent the largest age cohort among the unemployed. This younger group has different social behaviors than some of the older cohorts; they are just starting out in the labor force, have less job experience, and fewer skills, and are more susceptible to LIFO (last in – first out). They also tend to be more mobile. They represent a very small portion of claimants because many in this group, more so than in the older cohorts, are new entrants to the labor force and have not yet been employed, or may not have earned “qualifying wages.” If they do find themselves unemployed, many of them feel confident they can find new employment and don’t bother to file for compensation. This confidence may have led them to leave their latest job voluntarily - usually grounds for disqualification for unemployment compensation benefits.

A little over a third of New Hampshire unemployed people filed claims for unemployment compensation in 2004 comparing Geographic Profiles⁴ estimates to New Hampshire unemployment insurance claims records. The youngest age cohort has the lowest share of claimants, roughly 5 percent, compared to its total unemployed share of 32 percent.

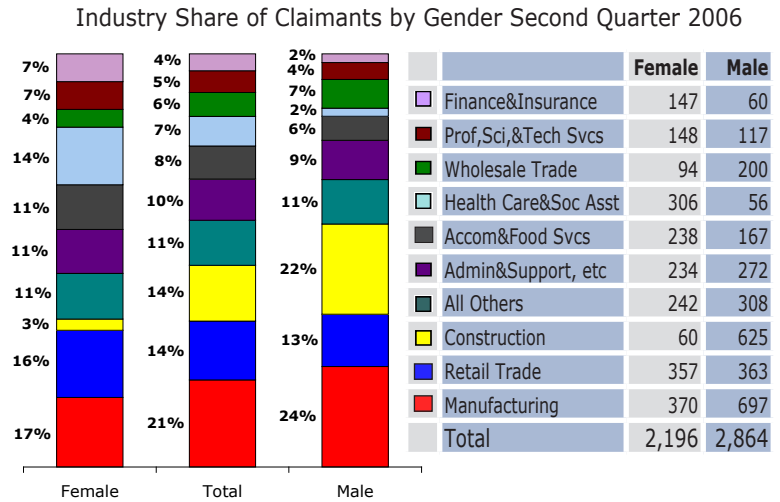


* from 2004 Geographic Profile of Employment and Unemployment, U.S. Dept. of Labor, Bureau of Labor Statistics

⁴ The U.S. Department of Labor releases state-by-state data that profiles the entire unemployed population. This data is from the Current Population Survey (CPS), and is published annually in the USDOL’s Geographic Profile of Employment and Unemployment.

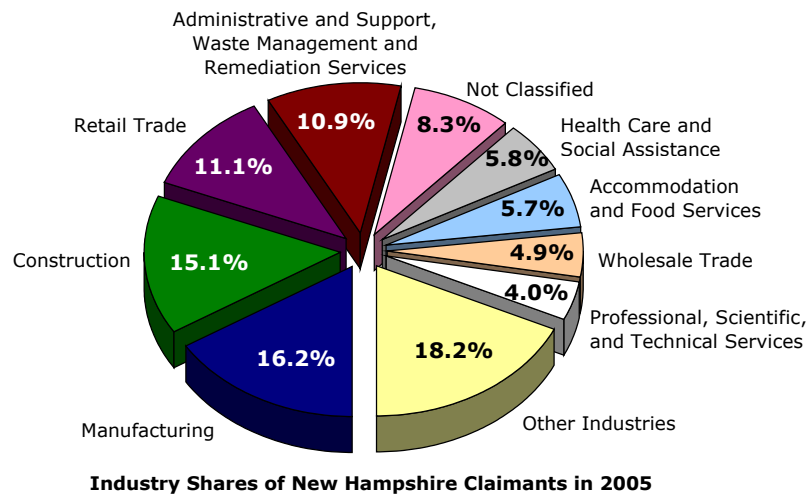
Claimants by Industry

Among all unemployment compensation claims in the second quarter of 2006 Manufacturing had, by far, the largest share of claimants filing for unemployment benefits. Construction and Retail trade were next at 14 percent each. Most seasonal Construction workers return to work during the second quarter.



Looking at average claims for 2005 the shares are considerably different. Though Manufacturing claims still represent the largest share, 16.2 percent, Construction claims are not far behind with 15.1 percent. Not much separates Retail trade (11.1 percent) and Administrative support, waste management and remediation services (10.9 percent) in third and fourth places.

Four Industry Sectors Account for More than Half of New Hampshire Claimants

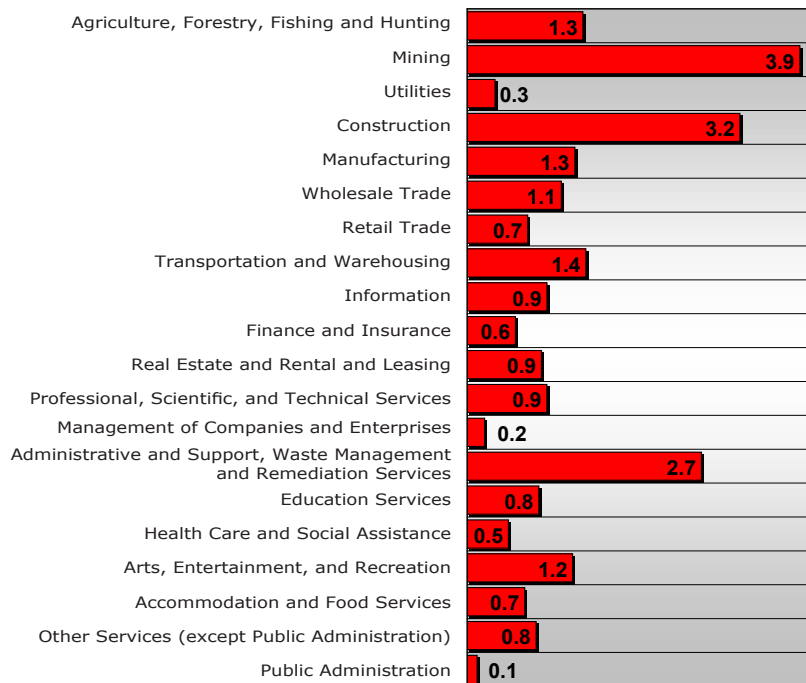


Claimants to Covered Employment Index

Certain industries tend to be proportionately over-represented in the claimant population. We have discussed how seasonal industries, such as Construction, may have higher shares of claimants. Industry sectors such as Retail trade and Accommodation and food services may rely heavily on part time and temporary workers whose wages may not be high enough to qualify them for benefits. Higher relative claimant levels in Manufacturing may be, in part, a function of seasonal patterns, but may also reflect the long-term structural decline in that sector. A claimant index by industry can help us analyze this. By dividing an industry's share of total claimants in 2005 by that industry's share of total covered jobs in 2005, we create a 2005 claimant index by industry. An index of 1.0 indicates that the claimant share for that industry was in line with that industry's share of covered jobs. An index of 3.0 indicates that claimants filed unemployment insurance claims against that industry 3 times as often as would be expected based on that industry's share of total covered employment.

This measure, underscores the impact that seasonality has on claims experience. All of the industry sectors with indexes above 1.0, except Wholesale trade, show strong seasonal patterns. The highest, Mining, is dominated by sand and gravel and linked to seasonal Construction behaviors. Administrative support services, includes Landscaping. Transportation and warehousing includes not only Scenic and sightseeing transportation (such as Railroad transportation, Scenic and sightseeing and Excursion boat operation) but also School and employee bus transportation.

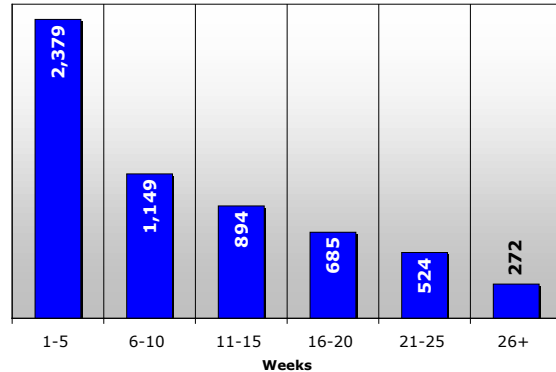
Index of Industry Share of Claims to Industry Share of Covered Jobs



Duration of Unemployment

During second quarter 2006, the largest number of claimants claimed benefits from one-to-five-weeks duration. At longer durations, claimant levels taper off. Even in a recession, few claimants collect the maximum 26 weeks and exhaust their benefits. In the current period of moderate growth, most claimants can be expected to return to work in a relatively short period of time. The average duration of New Hampshire unemployment compensation claims for the twelve months ending in June 2006 was 11.6 weeks.

Claimants by Duration of Claim - 2nd Quarter 2006



Long-term Claimants by Industry

In the second quarter of 2006, 25 percent of New Hampshire claimants had filed for more than fifteen weeks of benefits.

The Manufacturing and Construction industries saw the largest numbers of long-term claims filed during the second quarter. Manufacturing workers who lost jobs to technology or off-shoring may find that their skill sets no longer fit local demand. A period of adjustment or retraining may be needed before they can become reemployed. Claimants from industries related to Highway and bridge construction are likely to be laid off when the asphalt plants close in November and not be called back until April or May, after “mud season.”

Long-term Claimants (over 15 weeks claimed) in 2nd Quarter 2006 as percent of Industry Total

Industry Sector	Number of Claimants		
	Long-term	Total	% of Total
Manufacturing	360	1,066	33.8%
Construction	196	685	28.6%
Retail trade	155	720	21.6%
All others	142	551	25.7%
Administrative and support, waste management and remediation services	101	505	20.0%
Health care and social assistance	74	362	20.6%
Accommodation and food services	73	405	18.1%
Professional, scientific, and technical services	67	265	25.4%
Wholesale trade	67	294	22.7%
Finance and insurance	51	208	24.4%
Other services (except public administration)	38	161	23.8%
Information	31	100	31.4%
Real estate and rental and leasing	26	94	28.1%
Arts, entertainment, and recreation	26	106	24.2%
Transportation and warehousing	24	120	20.0%
Public administration	22	99	22.5%
Education services	14	89	16.1%
Management of companies and enterprises	5	16	30.6%
Agriculture, forestry, fishing and hunting	3	38	7.9%
Utilities	3	13	20.5%
Mining	2	8	28.0%
Total	1,481	5,904	25.1%

Long-term Claimants by Occupation

By occupation, *Production workers* showed the most long-term claimants in the second quarter of 2006.

Production workers are primarily found in Manufacturing. *Office and administrative support workers* are next. This group of occupations is spread across all industries. Third is *Construction and extraction workers* which are found mostly in the Construction and Mining industry sectors.

Long-term Claimants (over 15 weeks claimed)
as percent of Occupation Total

Occupational Group	Number of Claimants		
	Long-term	Total	% of Total
Production	266	832	32.0%
Office and Administrative Support	229	938	24.4%
Construction and Extraction	145	465	31.3%
Management	127	435	29.2%
Sales and Related	118	488	24.2%
Transportation and Material Moving	88	341	25.8%
All Others	70	616	11.4%
Food Preparation and Serving Related	59	269	21.8%
Building and Grounds Cleaning and Maintenance	58	176	33.2%
Installation, Maintenance, and Repair	43	230	18.8%
Computer and Mathematical	43	152	28.1%
Business and Financial Operations	41	166	24.5%
Architecture and Engineering	41	137	29.7%
Arts, Design, Entertainment, Sports, and Media	36	128	27.9%
Education, Training, and Library	22	93	24.0%
Healthcare Practitioners and Technical	22	78	27.7%
Healthcare Support	19	106	17.6%
Personal Care and Service	14	63	21.6%
Community and Social Services	12	61	19.8%
Life, Physical, and Social Science	8	26	32.1%
Protective Service	8	32	25.8%
Legal	7	32	23.2%
Farming, Fishing, and Forestry	5	37	13.4%
Military Specific	1	4	18.2%
Total	1,481	5,904	25.1%

Mass Layoff Statistics

The Mass Layoff Statistics (MLS) program tracks layoffs where fifty or more initial claims for unemployment compensation insurance benefits are filed against an employer during a five-week period. MLS data can serve as a tool to analyze the local economy by identifying industries which may be experiencing difficulties.

Because the threshold (50 claims) is high relative to the average size of the state's employers, and our economy is relatively small, New Hampshire has very few such layoff events. Many of the New Hampshire events result from seasonal layoffs by companies such as ski resorts or school bus companies when the winter ends or when school lets out for scheduled vacations.

New Hampshire has shown fewer mass layoff events in 2006, cumulative through August, than it did during the same period in 2005. These fewer events yielded fewer initial claims as well. New England, overall, also showed less mass layoff activity to date in 2006 than it showed in 2005. Mass layoffs for the U.S., however, went up.

Mass Layoff Events for the New England States, New England, and the United States

State	2005		2004		% Change	
	Events	Initial Claims	Events	Initial Claims	Events	Initial Claims
New Hampshire	40	4,666	29	2,726	37.9%	71.2%
Connecticut	55	4,972	49	4,203	12.2%	18.3%
Maine	43	3,445	48	4,293	-10.4%	-19.8%
Massachusetts	178	18,114	152	13,960	17.1%	29.8%
Rhode Island	65	9,151	51	6,907	27.5%	32.5%
Vermont	45	4,716	30	2,931	50.0%	60.9%
New England	426	45,064	359	35,020	18.7%	28.7%
United States	16,466	1,795,341	15,980	1,607,158	3.0%	11.7%

Industry Location Quotients and Industry Distribution of Private Jobs

Industry Location Quotients

Location quotients compare the industry shares in a region such as New Hampshire to a larger, standard region such as the U.S. They point to industries in which New Hampshire apparently has a competitive advantage compared to the average of all U.S. states. Competitive advantages are area characteristics that lower an industry's operating costs, such as lack of a sales tax for Retail trade, or a highly educated population for high tech manufacturing. In another example, at the beginning of the industrial revolution, availability of low cost labor and the abundance of water-power gave New England cotton mills a competitive advantage, even though the raw material had to be transported from the southern states. Over time New England labor costs rose, and steam and electricity replaced hydro for powering mills; cotton production moved south where the costs of production were lower.

- Educational services is the private industry sector with the highest location quotient in New Hampshire. The sector's total employment in 2005 was 17,069. Of those, private Colleges, universities, and professional schools in the state employed more than 9,500. Private Elementary and secondary schools employed another 4,180.

Location Quotient of New Hampshire 2005 Private Covered Industries by NAICS Sector Ranked in Descending Order

NAICS Industry Sector	Location Quotient	Sector Share of Total Private Covered Jobs		Total Jobs
	N.H.	N.H.	U.S.	N.H.
Educational services	1.64	3.19%	1.94%	17,069
Retail trade	1.32	18.19%	13.79%	97,422
Arts, entertainment, and recreation	1.20	2.02%	1.69%	10,822
Manufacturing	1.16	14.94%	12.83%	80,020
Health care and social assistance	1.07	13.90%	12.96%	74,427
Utilities	1.04	0.52%	0.50%	2,760
Finance and insurance	1.02	5.43%	5.34%	29,085
Accommodation and food services	0.99	9.77%	9.83%	52,340
Wholesale trade	0.98	5.11%	5.20%	27,379
Other services, except public administration	0.91	3.55%	3.91%	18,985
Management of companies and enterprises	0.87	1.37%	1.58%	7,361
Information	0.86	2.37%	2.76%	12,699
Construction	0.83	5.48%	6.57%	29,354
Real estate and rental and leasing	0.80	1.54%	1.92%	8,242
Professional and technical services	0.78	5.00%	6.38%	26,798
Administrative and waste services	0.64	4.64%	7.30%	24,861
Transportation and warehousing	0.64	2.39%	3.70%	12,787
Unclassified	0.43	0.11%	0.25%	585
Agriculture, forestry, fishing and hunting	0.35	0.37%	1.05%	1,958
Mining	0.21	0.10%	0.51%	561

Source: BLS Location Quotient Calculator, data.bls.gov/LOCATION_QUOTIENT/Servlet/lqc.ControllerServlet, accessed 10/13/06

Looking Forward - Preparing for the future New Hampshire economy

- Since it has no sales tax, New Hampshire is an exporter of retail sales to its neighbor states. This shows up with a high location quotient for the Retail trade sector. Shopping is also an important tourist activity. In addition, tourism generates a lot of revenue and creates jobs in the Arts, entertainment, and recreation, sector.
- The Manufacturing, Health care and social assistance, Utilities, and Finance and insurance sectors all have location quotients greater than 1.00.
- Mining is the industry sector with the lowest location quotient in New Hampshire. Almost all of our Mining is construction-related, the extraction of sand and gravel and crushed rock.

The New Hampshire location quotient for an industry is calculated by dividing the industry's share of total jobs in all industries by the industry's share of the standard region's (the U.S.) total jobs in all industries. A location quotient of 1.00 means that the industry's share of New Hampshire and U.S. jobs are the same. When the location quotient is well over 1.0, it may be assumed that more output is being exported than imported. It also suggests that New Hampshire has a competitive advantage in this industry.

Location Quotient of New Hampshire 2005 Private Covered Industries by NAICS Subsector Ranked in Descending Order

NAICS Industry Subsector	Location Quotient	Subsector Share of Total Private Covered Jobs		Total Jobs
	N.H.	N.H.	U.S.	N.H.
Computer and electronic product manufacturing	2.99	3.53%	1.18%	18,910
Nonstore retailers	2.72	1.05%	0.39%	5,617
Electrical equipment & appliance manufacturing	2.17	0.85%	0.39%	4,546
Electronic markets and agents & brokers	2.16	1.45%	0.67%	7,753
Scenic and sightseeing transportation	1.98	0.05%	0.03%	265
Miscellaneous manufacturing	1.91	1.12%	0.59%	5,998
Leather and allied product manufacturing	1.84	0.06%	0.04%	348
Securities, commodity contracts, investments	1.72	1.24%	0.72%	6,624
Educational services	1.64	3.19%	1.94%	17,069
Fabricated metal product manufacturing	1.60	2.19%	1.37%	11,722
Transit & ground passenger transportation	1.59	0.55%	0.35%	2,972
Sporting goods, hobby, book & music stores	1.58	0.93%	0.59%	4,968
Building material & garden supply stores	1.57	1.81%	1.15%	9,719
Publishing industries, except Internet	1.49	1.22%	0.82%	6,510
Primary metal manufacturing	1.49	0.62%	0.42%	3,342
Textile mills	1.48	0.29%	0.20%	1,554
Forestry and logging	1.45	0.09%	0.06%	499
Food and beverage stores	1.43	3.63%	2.54%	19,414
Electronics and appliance stores	1.41	0.68%	0.49%	3,665
Miscellaneous store retailers	1.39	1.13%	0.82%	6,062
Plastics & rubber products manufacturing	1.38	1.00%	0.72%	5,341
Motor vehicle and parts dealers	1.37	2.38%	1.73%	12,734
Machinery manufacturing	1.32	1.38%	1.05%	7,410
Amusements, gambling, and recreation	1.28	1.59%	1.24%	8,514
Insurance carriers and related activities	1.26	2.44%	1.93%	13,072
Gasoline stations	1.24	0.97%	0.78%	5,180
Furniture and home furnishings stores	1.22	0.63%	0.52%	3,398
Hospitals	1.16	4.52%	3.89%	24,215
Paper manufacturing	1.16	0.51%	0.44%	2,710
Printing and related support activities	1.15	0.67%	0.58%	3,579
Clothing and clothing accessories stores	1.11	1.42%	1.28%	7,628
Social assistance	1.09	2.06%	1.89%	11,043
Nonmetallic mineral product manufacturing	1.09	0.50%	0.46%	2,656
Repair and maintenance	1.08	1.21%	1.12%	6,462
Wood product manufacturing	1.07	0.54%	0.51%	2,896
Ambulatory health care services	1.06	4.91%	4.62%	26,294
Accommodation	1.06	1.73%	1.64%	9,275
General merchandise stores	1.05	2.78%	2.65%	14,907
Utilities	1.04	0.52%	0.50%	2,760
Personal and laundry services	1.01	1.16%	1.15%	6,234
Waste management & remediation services	1.01	0.31%	0.31%	1,652

Source: BLS Location Quotient Calculator, data.bls.gov/LOCATION_QUOTIENT/Servlet/lqc.ControllerServlet, accessed 10/13/06

Looking Forward - Preparing for the future New Hampshire economy

At the more detailed NAICS subsector level, Computer and electronic product manufacturing jobs occur in New Hampshire at almost three times the rate (location quotient 2.99) that they occur in the U.S. as a whole. This industry has been important in New Hampshire and central New England, where world-class colleges and universities produce a labor force with high-tech skills and know-how. It is still efficient to do this type of high-value-added manufacturing in an area where wages are high and at a time when manufacturing requiring unskilled workers has moved to low-wage parts of the world. Of course skilled, highly educated workers are likely to be more mobile than unskilled workers. There is a danger that lower living costs and greater availability of affordable housing will attract them to rapidly developing areas in the South and Southwest where lower living costs may more than compensate for lower wages.

Location Quotient of New Hampshire 2005 Private Covered Industries by NAICS Subsector Ranked in Descending Order

NAICS Industry Subsector	Location Quotient	Subsector Share of Total Private Covered Jobs		Total Jobs
	N.H.	N.H.	U.S.	N.H.
Food services and drinking places	0.98	8.04%	8.19%	43,065
Museums, historical sites, zoos, and parks	0.98	0.10%	0.11%	561
Performing arts and spectator sports	0.95	0.33%	0.34%	1,747
Nursing and residential care facilities	0.94	2.40%	2.57%	12,875
Rental and leasing services	0.92	0.54%	0.58%	2,866
Construction of buildings	0.90	1.40%	1.55%	7,487
Health and personal care stores	0.90	0.77%	0.86%	4,130
Beverage and tobacco product manufacturing	0.90	0.16%	0.17%	838
Membership associations and organizations	0.88	1.03%	1.17%	5,498
Management of companies and enterprises	0.87	1.37%	1.58%	7,361
Specialty trade contractors	0.84	3.50%	4.18%	18,765
Merchant wholesalers, durable goods	0.83	2.26%	2.71%	12,081
Professional and technical services	0.78	5.00%	6.38%	26,798
Merchant wholesalers, nondurable goods	0.77	1.41%	1.82%	7,545
Couriers and messengers	0.77	0.39%	0.51%	2,086
Real estate	0.76	1.00%	1.32%	5,358
Warehousing and storage	0.76	0.40%	0.53%	2,145
Telecommunications	0.69	0.62%	0.90%	3,324
Heavy and civil engineering construction	0.69	0.58%	0.84%	3,102
Credit intermediation and related activities	0.66	1.72%	2.60%	9,223
Administrative and support services	0.62	4.33%	7.00%	23,210
ISPs, search portals, and data processing	0.59	0.20%	0.34%	1,092
Truck transportation	0.55	0.69%	1.26%	3,673
Broadcasting, except Internet	0.48	0.14%	0.29%	760
Motion picture and sound recording industries	0.45	0.15%	0.34%	816
Furniture and related product manufacturing	0.44	0.23%	0.51%	1,214
Chemical manufacturing	0.41	0.32%	0.79%	1,728
Animal production	0.36	0.07%	0.19%	365
Support activities for transportation	0.33	0.16%	0.50%	880
Private households	0.32	0.15%	0.47%	792
Crop production	0.31	0.16%	0.50%	835
Food manufacturing	0.30	0.41%	1.34%	2,176
Air transportation	0.29	0.13%	0.45%	709
Transportation equipment manufacturing	0.27	0.43%	1.60%	2,325
Apparel manufacturing	0.25	0.06%	0.23%	310
Agriculture and forestry support activities	0.16	0.05%	0.29%	256

Source: BLS Location Quotient Calculator, data.bls.gov/LOCATION_QUOTIENT/servlet/lqc.ControllerServlet, accessed 10/13/06

Nonstore retailers (these include Electronic shopping and mail-order houses, Vending machine operators, and Direct selling establishments) are next with a location quotient of 2.76. The Electrical equipment and appliance manufacturing, Electronic markets and agents and brokers, Scenic and sightseeing

transportation, and Miscellaneous manufacturing industry jobs all appear in New Hampshire at around double the U.S. rate. Educational services, Fabricated metal product manufacturing, Food and beverage stores, Motor vehicle and parts dealers, and Insurance carriers and related activities are subsectors that have employment counts of more than 10,000 jobs and location quotients above 1.25.

Ambulatory health care services and Hospitals, the industry subsectors with the third and fourth highest number of jobs in New Hampshire have industry quotients greater than 1.00. Food services and drinking places and Professional and technical services, first and second respectively, by numbers of jobs in New Hampshire, have location quotients less than 1.00. Conversely, Scenic and sightseeing transportation has a very high location quotient but relatively small employment numbers. That is because this industry represents a tiny share of total U.S. employment. Because our forests provide the raw materials, we have a high location quotient in forestry and logging, but employment numbers are small. The closure of the two pulp and paper plants in Coos County last spring and land-use changes by New Hampshire landowners could alter that location quotient drastically. Not surprisingly, agriculture-related subsectors have low location quotients.

Distribution of New Hampshire 2005 Private Covered Jobs by NAICS Industry Sector Ranked in Descending Order

	Total Private Covered Jobs	Sector Share of Total
NAICS Industry Sector	N.H.	N.H.
Total, all industries	535,514	100.00%
Retail trade	97,422	18.19%
Manufacturing	80,020	14.94%
Health care and social assistance	74,427	13.90%
Accommodation & food services	52,340	9.77%
Construction	29,354	5.48%
Finance and insurance	29,085	5.43%
Wholesale trade	27,379	5.11%
Professional and technical services	26,798	5.00%
Administrative & waste services	24,861	4.64%
Other services, except public administration	18,985	3.55%
Educational services	17,069	3.19%
Transportation and warehousing	12,787	2.39%
Information	12,699	2.37%
Arts, entertainment, and recreation	10,822	2.02%
Real estate and rental and leasing	8,242	1.54%
Management of companies and enterprises	7,361	1.37%
Utilities	2,760	0.52%
Agriculture, forestry, fishing and hunting	1,958	0.37%
Unclassified	585	0.11%
Mining	561	0.10%

Industry Distribution of Private Jobs

Retail trade leads all other NAICS industry sectors by volume of jobs in private covered employment in New Hampshire, based on 2005 annual averages, and accounts for nearly one in five jobs. In spite of a trend of long-term decline, Manufacturing follows next with nearly 15 percent of the total jobs in all private industries. Healthcare and social assistance, which has been on the rise for some time, comes in third, while Accommodation and food service industries hold nearly one in ten jobs.

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At a more detailed level, Food services and drinking places, (part of Accommodation and food services) is the subsector with the largest number of jobs. This is followed by Professional and technical services, which is both a sector and a subsector,⁵ and Ambulatory health care services and Hospitals within the Health care and social assistance sector. Administrative and support services, a subsector of the Administrative and waste services sector, comes next. Food and beverage stores and General merchandise stores from Retail trade sector hold down the sixth and tenth positions. Computer and electronic product manufacturing ranks seventh. Specialty trade contractors part of the Construction sector and Educational services which is both a sector and a subsector round out the top ten in eighth and ninth place, respectively.

⁵ In the NAICS hierarchy, 2-digit "sectors" are subdivided into 3-digit "subsectors," which are further divided into 4-digit "industry groups." Specific 5-digit "industries" are aggregated into industry groups. Industries are aggregates of 6-digit "national industries."

NAICS Industry Subsectors with 2005 Employment Greater than the New Hampshire Median for all Subsectors (3,489 jobs)
Ranked in Descending Order

NAICS Industry Subsector	Total Private Covered Jobs	Subsector Share of Total
Total, all industries	535,514	100.00%
Food services and drinking places	43,065	8.04%
Professional, scientific and technical services	26,798	5.00%
Ambulatory health care services	26,294	4.91%
Hospitals	24,215	4.52%
Administrative and support services	23,210	4.33%
Food and beverage stores	19,414	3.63%
Computer and electronic product manufacturing	18,910	3.53%
Specialty trade contractors	18,765	3.50%
Educational services	17,069	3.19%
General merchandise stores	14,907	2.78%
Insurance carriers and related activities	13,072	2.44%
Nursing and residential care facilities	12,875	2.40%
Motor vehicle and parts dealers	12,734	2.38%
Merchant wholesalers, durable goods	12,081	2.26%
Fabricated metal product manufacturing	11,722	2.19%
Social assistance	11,043	2.06%
Building material and garden supply stores	9,719	1.81%
Accommodation	9,275	1.73%
Credit intermediation and related activities	9,223	1.72%
Amusements, gambling, and recreation	8,514	1.59%
Electronic markets and agents and brokers	7,753	1.45%
Clothing and clothing accessories stores	7,628	1.42%
Merchant wholesalers, nondurable goods	7,545	1.41%
Construction of buildings	7,487	1.40%
Machinery manufacturing	7,410	1.38%
Management of companies and enterprises	7,361	1.37%
Securities, commodity contracts, investments	6,624	1.24%
Publishing industries, except Internet	6,510	1.22%
Repair and maintenance	6,462	1.21%
Personal and laundry services	6,234	1.16%
Miscellaneous store retailers	6,062	1.13%
Miscellaneous manufacturing	5,998	1.12%
Nonstore retailers	5,617	1.05%
Membership associations and organizations	5,498	1.03%
Real estate	5,358	1.00%
Plastics and rubber products manufacturing	5,341	1.00%
Gasoline stations	5,180	0.97%
Sporting goods, hobby, book & music stores	4,968	0.93%
Electrical equipment & appliance manufacturing	4,546	0.85%
Health and personal care stores	4,130	0.77%
Truck transportation	3,673	0.69%
Electronics and appliance stores	3,665	0.68%
Printing and related support activities	3,579	0.67%

Employment Projections by Occupation

Total employment in New Hampshire is projected to increase by 16.7 percent from 2004 to 2014, adding more than 113,700 jobs. Jobs in *Health-related* occupations and *Computer-related* occupations are expected to grow at more than twice the average rate for all occupations. This calculates to roughly 21,000 new jobs in the state from 2004 to 2014. Most *Production* occupations are projected to lose employment, attributable mostly to an expected decline in the Manufacturing sector.

The *Healthcare support* occupations group is projected to grow at more than twice the rate for all occupations in the state from 2004 to 2014. With a projected growth rate of 37.3 percent, this group should add more than 5,500 new jobs, bringing its count to over 20,100 by 2014. Workers in this group provide support to *Healthcare practitioners and technicians*. In New Hampshire, the occupation in this group with the largest employment level is *Nursing aides, orderlies, and attendants*.

With an aging population and longer life expectancies, the demand for health care should continue to rise. In fact, New Hampshire's Health care and social assistance industry sector is expected to add more than 25,400 jobs from 2004 to 2014, a growth rate of 34 percent. This increase will drive growth in the *Healthcare support* occupations group as well as in the *Healthcare practitioners and technicians* group (projected to grow by 31.7 percent), since these occupations dominate the industry sector's jobs. Combined, they are expected to add 15,793 new jobs in the state by 2014.⁶

With projected growth of 35.6 percent from 2004 to 2014, *Computer and mathematical* occupations will be in demand. Half of the occupations in this group are projected to increase at more than double the rate of all occupations. Driving this demand is the trend of companies continuing to increase their use of sophisticated technologies in their business.

It is anticipated that the *Production* occupations group will shed 1,355 jobs from 2004 to 2014, a decline of 2.6 percent. This is the only occupational group in New Hampshire predicted to lose employment. *Production* occupations are most prevalent in the Manufacturing industry sector. Employment in this sector has been drained in recent years by the push to lower production costs in response to foreign competition. Productivity of high-cost U.S. workers is enhanced with capital investment in technology, or jobs are off-shored to take advantage

⁶ For more detail regarding this demand, see *Eldercare in New Hampshire, Labor Market Trends and their Implications*, Economic and Labor Market Information Bureau, New Hampshire Employment Security (March 2006).

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Occupational Groups Sorted by Percent Change

SOC Code	SOC Title	2004 Employment	2014 Projected	Net Change	% Change
000000	Total Employment	681,446	795,234	113,788	16.7%
31-0000	Healthcare Support Occupations	14,815	20,336	5,521	37.3%
15-0000	Computer and Mathematical Occupations	14,853	20,134	5,281	35.6%
29-0000	Healthcare Practitioners and Technical Occupations	32,356	42,628	10,272	31.7%
21-0000	Community and Social Services Occupations	9,882	12,832	2,950	29.9%
39-0000	Personal Care and Service Occupations	19,956	25,333	5,377	26.9%
25-0000	Education, Training, and Library Occupations	44,024	55,483	11,459	26.0%
13-0000	Business and Financial Operations Occupations	26,465	32,774	6,309	23.8%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	23,824	28,811	4,987	20.9%
23-0000	Legal Occupations	3,795	4,548	753	19.8%
19-0000	Life, Physical, and Social Science Occupations	4,270	5,105	835	19.6%
47-0000	Construction and Extraction Occupations	31,909	37,689	5,780	18.1%
35-0000	Food Preparation and Serving Related Occupations	54,538	64,167	9,629	17.7%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	9,119	10,722	1,603	17.6%
41-0000	Sales and Related Occupations	93,577	108,815	15,238	16.3%
11-0000	Management Occupations	46,641	54,214	7,573	16.2%
17-0000	Architecture and Engineering Occupations	13,636	15,744	2,108	15.5%
33-0000	Protective Service Occupations	11,219	12,928	1,709	15.2%
49-0000	Installation, Maintenance, and Repair Occupations	26,751	30,702	3,951	14.8%
45-0000	Farming, Fishing, and Forestry Occupations	2,176	2,493	317	14.6%
53-0000	Transportation and Material Moving Occupations	37,263	42,385	5,122	13.7%
43-0000	Office and Administrative Support Occupations	109,140	117,509	8,369	7.7%
51-0000	Production Occupations	51,237	49,882	-1,355	-2.6%

of low labor costs in third world economies. Ironically, this has sometimes led to shortages of skilled workers because of a misperception that there is no future in Manufacturing careers. Successful manufacturers are turning to lower volume, high value-added products. Because of this, the skills needed for the Manufacturing workforce are changing. What once was thought of as low-skilled, repetitive work now requires more skills and more technical knowledge.

Top Jobs – Fastest Growing

Because of our aging population, most health-related industries are projected to grow more rapidly than the average for all industries from 2004 to 2014. As a result, four of the ten jobs expected to grow at the fastest rate in the New Hampshire are health-related. *Home health aides* topped the list with an anticipated growth of 69.3 percent, four times the average for

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Occupations Projected to Grow the Fastest (minimum employment 500 in base year)

SOC Code	SOC Title	2004 Employment	2014 Projected	Net Change	% Change
31-1011	Home Health Aides	1,956	3,311	1,355	69.3%
15-1081	Network Systems and Data Communications Analysts	703	1,096	393	55.9%
31-9092	Medical Assistants	1,045	1,623	578	55.3%
15-1031	Computer Software Engineers, Applications	3,447	5,344	1,897	55.0%
13-2052	Personal Financial Advisors	788	1,177	389	49.4%
31-9091	Dental Assistants	1,185	1,737	552	46.6%
29-2021	Dental Hygienists	1,325	1,940	615	46.4%
21-1099	Community and Social Service Specialists, All Other	624	907	283	45.4%
39-9021	Personal and Home Care Aides	2,808	4,074	1,266	45.1%
21-1015	Rehabilitation Counselors	972	1,373	401	41.3%

all occupations in the state. *Personal and home care aides* also made the list of fastest growing jobs with a rate of 45.1 percent. The continuing trend of shortening patient in-hospital stays may be driving the demand for these jobs, as many of those discharged still need continued health care and personal care at home.

Other health-related jobs on the fastest growing list include *Medical assistants* (55.3 percent), *Dental assistants* (46.6 percent), and *Dental hygienists* (46.4 percent).

Network systems and data communications analysts should grow the fastest among the computer-related jobs. These analysts are typically the Webmaster or Internet specialists in a company. With an anticipated 55.9 percent rate of growth, this occupation should add another 400 jobs by 2014.

As businesses continue to increase productivity by analyzing customer needs and implementing software solutions, *Computer software engineers (applications)* will also be in demand. By 2014, the state should see an additional 1,900 of these engineers, an increase of 55.0 percent.

Top Jobs – Most New Jobs

In considering the future demand for occupations, projected net growth is potentially more significant than projected rate of growth. Occupations with lower growth rates but higher employment levels can account for large numbers of added jobs. If an occupation which has 10 jobs grows by 100 percent, it adds 10 jobs, but, if an occupation which has 10,000 jobs grows by just 1 percent, it adds 100 jobs. Which occupation is in greater demand?

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Occupations Adding the Most New Jobs

SOC Code	SOC Title	2004 Employment	2014 Projected	Net Change	% Change
41-2031	Retail Salespersons	26,064	32,448	6,384	24.5%
29-1111	Registered Nurses	12,041	16,239	4,198	34.9%
13-1199	Business Operations Specialists, All Other	7,608	10,057	2,449	32.2%
25-9041	Teacher Assistants	9,941	12,380	2,439	24.5%
35-3021	Combined Food Prep/Serving Workers, including Fast Food	11,580	13,991	2,411	20.8%
43-4051	Customer Service Representatives	8,560	10,767	2,207	25.8%
31-1012	Nursing Aides, Orderlies, and Attendants	7,173	9,344	2,171	30.3%
41-2011	Cashiers	20,211	22,379	2,168	10.7%
37-2011	Janitors/Cleaners, except Maids/Housekeeping Cleaners	9,930	12,048	2,118	21.3%
35-3031	Waiters and Waitresses	11,710	13,638	1,928	16.5%

The list of the ten occupations expected to add the most new jobs is more diverse than the list of the fastest growing and reflects the broad industry base of New Hampshire's economy. Two of these occupations are typically found in health-related industries, two in Retail trade, two in Food preparation and serving, and one in Education. The remaining three — *Business operations specialists (all other)*, *Customer service representatives*, and *Janitors/cleaners, except maids/housekeeping cleaners* — are found in many different industries.

The top ten occupations expected to add the most new jobs in New Hampshire from 2004 to 2014 are also the ones with the highest employment levels. For instance, in 2004 there were roughly 26,070 *Retail salespersons* in the state, the most numerous of all occupations. With an additional 6,400 jobs projected by 2014 (more than any other occupation) and a growth rate significantly higher than that for all occupations (24.5 percent from 2004 to 2014), *Retail salespersons* will still be the largest occupation with about 32,450 jobs in the state.

Registered nurses should add another 4,200 to their ranks, bringing the total to 16,240 by 2014. This occupation came in at number two for most jobs added from 2004 to 2014 and was the fourth largest occupation in the state in 2004. *Registered nurses*, *Business operations specialists (all other)*, and *Nursing aides, orderlies, and attendants* all are ranked in the top ten for net jobs added and are expected to grow at nearly twice the average for all New Hampshire occupations. Though *Cashier* jobs and *Waiter and waitress* jobs will grow more slowly than the average, they will add about 2,000 jobs each over the 10-year projection span.

Occupational Groups Sorted by Net Change

SOC Code	SOC Title	2004 Employment	2004 Share	2014 Projected	2014 Share	Change
000000	Total Employment	681,446	100.0%	795,234	100.0%	113,788
43-0000	Office and Administrative Support Occupations	109,140	16.0%	117,509	14.8%	8,369
41-0000	Sales and Related Occupations	93,577	13.7%	108,815	13.7%	15,238
35-0000	Food Preparation and Serving Related Occupations	54,538	8.0%	64,167	8.1%	9,629
51-0000	Production Occupations	51,237	7.5%	49,882	6.3%	-1,355
11-0000	Management Occupations	46,641	6.8%	54,214	6.8%	7,573
25-0000	Education, Training, and Library Occupations	44,024	6.5%	55,483	7.0%	11,459
53-0000	Transportation and Material Moving Occupations	37,263	5.5%	42,385	5.3%	5,122
29-0000	Healthcare Practitioners and Technical Occupations	32,356	4.7%	42,628	5.4%	10,272
47-0000	Construction and Extraction Occupations	31,909	4.7%	37,689	4.7%	5,780
49-0000	Installation, Maintenance, and Repair Occupations	26,751	3.9%	30,702	3.9%	3,951
13-0000	Business and Financial Operations Occupations	26,465	3.9%	32,774	4.1%	6,309
37-0000	Building and Grounds Cleaning and Maintenance Occupations	23,824	3.5%	28,811	3.6%	4,987
39-0000	Personal Care and Service Occupations	19,956	2.9%	25,333	3.2%	5,377
15-0000	Computer and Mathematical Occupations	14,853	2.2%	20,134	2.5%	5,281
31-0000	Healthcare Support Occupations	14,815	2.2%	20,336	2.6%	5,521
17-0000	Architecture and Engineering Occupations	13,636	2.0%	15,744	2.0%	2,108
33-0000	Protective Service Occupations	11,219	1.6%	12,928	1.6%	1,709
21-0000	Community and Social Services Occupations	9,882	1.5%	12,832	1.6%	2,950
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	9,119	1.3%	10,722	1.3%	1,603
19-0000	Life, Physical, and Social Science Occupations	4,270	0.6%	5,105	0.6%	835
23-0000	Legal Occupations	3,795	0.6%	4,548	0.6%	753
45-0000	Farming, Fishing, and Forestry Occupations	2,176	0.3%	2,493	0.3%	317

Shift in Staffing Patterns

A staffing pattern is simply the occupations typically found in an industry. As industries change over time, it is not unusual for staffing patterns to change also. The change may be different (or new) occupations showing up in an industry, or a change in the share of a specific occupation in that industry.

Because there are more than 650 occupations, using groups or “families” of occupations allows us to analyze them in terms of share of total employment. Of the 22 occupational groups designated by the U.S. Department of Labor, nine increased their share of total New Hampshire employment from 2004 to 2014, three declined their share, and ten remained unchanged.

New Hampshire's largest occupational group, *Office and administrative support* occupations, claimed 16.0 percent of total employment in 2004. Although employment in this group as a whole is expected to increase by 2014, its share of total employment is projected to decrease to 14.8 percent. The ongoing need to increase productivity — to find ways to do things faster and at less cost — will continue to impact future staffing patterns.

It wasn't long ago that accessing a file from the other side of the office meant having a clerical worker pull a hard copy of it and hand it to you, then refile it when you were done. Now everyone in the office can access the same file simultaneously using a desktop computer and a shared network server. Thus the need for clerical staff decreases and the need for information technology staff increases. This also changes the work tasks for the professionals in the office. Before they did not need to understand the filing system. Now they need to know where that file is stored on the server. They also need to type their own documents. In reducing the support staff, the professional staff has had to acquire some new skills.

Not all administrative jobs, however, will be negatively impacted by advances in technology. For example, *Customer service representatives* job counts are expected to grow, during the projection cycle, at about the same rate as all industries due in part to the popularity of on-line shopping. Many of these employees answer questions for on-line customers either by E-mail or phone.

Production occupations, made up mostly of jobs found in the declining goods-producing Manufacturing sector, is the only group projected to lose jobs from 2004 to 2014. With an anticipated loss of about 1,350 jobs, this occupational group should see its share of total employment drop from 7.5 percent in 2004 to 6.3 percent in 2014. Advances in Manufacturing technology, like faster machines and automation of more operations, and a change in the mix of Manufacturing industries in New Hampshire, may also help to reduce the need for certain jobs commonly found in the Manufacturing sector like *Machine operators and tenders* and *Inspectors, testers, sorters, samplers, and weighers*.

Not all Manufacturing jobs are projected to decline, however, because not all Manufacturing industries are expected to lose jobs. *Team assemblers*, found largely in the growing industries of Fabricated metal product manufacturing and Machinery manufacturing, topped the list of growing *Production* occupations. With an additional 200 jobs expected through 2014, this occupation should grow to about 4,050 by 2014. *Team assemblers* work as part of a team responsible for assembling an entire product or a component of a product. They can

perform all tasks required of the team in the assembly process and rotate among all or most of them, rather than performing the same task repeatedly.

Other *Production* jobs are expected to increase because they are commonly found in service-providing industries that should grow by 2014. For example, *Butchers and meat cutters* and *Meat, poultry, and fish cutters and trimmers* should add 70 and 50 jobs, respectively, because they are typically found in the growing Food and beverage stores industry. *Laundry and dry cleaning workers* are projected to add 200 jobs by 2014, largely due to the above average growth anticipated in the Personal and laundry services industry. Population growth is often a driving factor in occupations related to service-providing industries that largely serve a local demand.

The *Education, training, and library* occupations group claimed 6.5 percent of total statewide employment in 2004. With an additional 11,460 jobs projected by 2014, this group should claim 7.0 percent of total employment by 2014. As the state's school age population continues to increase, the need for elementary, middle, and secondary school teachers as well as special education teachers should increase. Piggybacking on the anticipated increase in the number of *Teachers, Teacher assistants* are expected to add more new jobs than any other occupation in this group (2,440 jobs by 2014).

It was noted above that the *Healthcare practitioners and technicians* occupations group would see the largest percent increase from 2004 to 2014. That group will also see the largest increase, over that period, in terms of share of total employment. Due partly to an aging population, longer life expectancies, and advances in diagnostic and medical equipment, jobs in this group should increase from 4.7 percent of total 2004 employment (31,900 jobs) to 5.4 percent of 2014 employment (42,630 jobs).

New and Emerging Occupations

Defining New and Emerging Occupations

The U.S. Bureau of Labor Statistics (BLS), which operates the Occupational Employment Statistics program, has not developed a precise definition of “new and emerging” occupations. Most recently, BLS has described new occupations as those “...created by changes in technology, society, markets or regulations...,” and emerging occupations as those that “...may also be created by existing occupations that have been substantially modified by the same changes, and are increasing in employment.”⁷ It’s not so much, “I’ll know it when I see it” as “new and emerging occupations are in the eye of the beholder.”

⁷ Crosby, Olivia. “New and Emerging Occupations.” Occupational Outlook Quarterly Fall 2002: pg. 17.

New and Emerging Occupations from National Studies

National Center for O*Net Development

The results of a pilot study of new and emerging occupations was conducted by the National Center for O*Net Development and published in March 2006.^a Focusing on three industries (Healthcare, Biotechnology and Geospatial Technology) considered high growth, it found five potential new and emerging occupations:

- Advanced practice nurse
- Bioinformation scientist
- Bioinformation technician
- Geospatial information systems scientist/technologist
- Geospatial information systems technician

BLS/OES surveys

The Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES) program collects data on new and emerging occupations by use of supplemental sheets as part of a larger survey.^b The following were identified in the 1993, 1996, and 1999 surveys.

- Bereavement counselor
- Quality assurance director
- Utilization review coordinator
- Volunteer coordinator
- Webmaster^c

Decennial Census

The U.S. Census is taken every 10 years and is a source for job titles (but not descriptions). The titles below were added to the census database following the 1990 and 2000 decennial censuses^d:

- Artificial intelligence specialist
- Information technology specialist
- Ethics officer
- Human factors engineer
- Employee wellness coordinator

^a “New and Emerging (N&E) Occupations Methodology Development Report.” U. S. Department of Labor, Employment and Training Administration, Office of Workforce Investment, Skill Assessment Team, Washington, DC; submitted by the National Center for O*NET Development. March, 2006. <www.onetcenter.org>.

^b Pikulinski, Jerome. “New and Emerging Occupations.” May 2003. U.S. Department of Labor, Bureau of Labor Statistics. Accessed September 14, 2006. <www.bls.gov/oes/2003/may/emerging.pdf>.

^c This occupation was added to the SOC in 2000, under the title Network systems and data communications analyst.

^d Crosby, Olivia. “New and Emerging Occupations,” Occupational Outlook Quarterly, Fall 2002; pg. 19. Accessed October 30, 2006. <www.bls.gov/opub/ooq/2002/fall/art02.pdf>.

One quality common to the definitions used in different studies is that the occupation fails to fit into an existing occupational classification. The BLS Occupational Employment Statistics (OES) survey, administered in New Hampshire by the NHES Economic and Labor Market Information Bureau, uses the Standard Occupational Classification system (SOC).⁸

When several employers in a particular industry report the same new occupation (for which a satisfactory SOC title cannot be found) on their OES survey, this may point to a new or emerging occupation. At first, these jobs tend to be put into a residual “all other” occupational classification which, when published, does not retain the specific title and description reported by employers. So, discussion about occupations is restricted to the emerging ones that retain a definition.

All Federal agencies that collect occupational data use the Standard Occupational Classification (SOC) manual. It contains a more than 800 occupational titles with descriptions. It is currently being revised. No occupations have been added to the SOC since 2000. If a reported occupation is not included as a distinct detailed occupation, it is usually rolled into a residual, or “all other” occupation until it becomes apparent that it is unique enough to warrant its own specific occupational title and description.

⁸ Office of Management and Budget, (2000) Standard Occupational Classification (SOC) Manual. (2000 Ed.). Washington DC

Two states have performed studies on New and Emerging occupations:

Minnesota

A Minnesota study in 1998^a identified the following new and emerging jobs:

- Curriculum integration specialist
- Geographic information system (GIS) specialist
- Interactive specialist (testing website and software ease of use)
- Resident assessment specialist
- Restorative justice specialist

Texas

An ongoing Texas study^b which began in 2000 has identified the following new and emerging jobs:

- Direct broadcast satellite services technician
- Internet development specialist
- Multimedia specialist
- Videosever technician
- Wireless communications technician

^a “New and Evolving Occupations.” August 1999. Research & Statistics Office, Minnesota Department of Economic Security. Accessed September 29, 2006. <www.deed.state.mn.us/lmi/publications/neo.htm>.

^b “Emerging and Evolving Occupations in Texas.” Texas Workforce Commission, Labor Market and Career Information. Accessed September 29, 2006. <www.cdr.state.tx.us/Researchers/emergingoverview.asp>.

Often, an occupation is reported as new in one industry when it actually can be found in other industries. In these cases, the existing classifications are used and the occupations are not considered new.

Survey Input from New Hampshire Employers

New Hampshire employers reported, on supplemental sheets on their Occupational Employment Survey questionnaires, from 2000 to 2006, the following occupations which did not fit an existing SOC (Standard Occupational Classification) code. New and emerging occupations are often defined as those jobs that do not meet a standard occupational classification system.

Survey/Occupation	Description
2000 Survey	
Transfer/recycling center attendant (also appeared in 2002 & 2003)	Direct the flow of refuse to the proper places Answer questions and monitor disposal of recyclables
Accounts administrator, or CORF (Comprehensive outpatient rehabilitation facility) coordinator	They deal with special billing issues in medical offices
Adult in-home caretaker/day program staff	In private homes, they provide social activities, recreation, and arts/crafts to adults with disabilities
2001 Survey	
Mortgage loan closer/officer	Facilitate the execution of documents necessary to complete the loan process
2002 and 2003 Surveys	
Technology center coordinator	Develops and maintains the center and devices used for people with disabilities
2004 Survey	
Healthcare specialist	Provides in-home respiratory care
Videoconferencing technician (includes Distance learning coordinator)	Set up, troubleshoot, and track videoconferencing technology
2005 Survey	
Emergency medicine/emergency room physician	This branch of medicine has evolved into a specialty
Warranty development managers/coordinators/specialist	Handles warranty paperwork in automobile dealerships
Animal rehabilitation specialist	Administers physical therapy to horses, dogs, and other pets

Skills Based Employment Projections – based on highest employment levels in 2014

Determining which occupations are growing and which ones will have the highest demand for more workers has always been a focal point for career counselors and training program planners. As the economy goes through structural changes, the occupations in the scope of focus also change. The common thread to all occupations, though, is the skills, knowledge and work activities that are necessary to do those jobs. These are the transferable qualities that can be carried from job to job. Because of this, it is important to be able to project the knowledge, skills and activities that will be needed in the future.

Skills Based Employment Projections is a tool that will do this. It compiles information about current supply, projected demand, and the knowledge/skills gap for job requirements. This state-specific information is produced by merging New Hampshire's long-term occupational projections with the skills-based database.

The base-year employment of the most recent projections period, in this case 2004 to 2014, established the current supply. Skills were evaluated as to the level of relevance for each occupation within the base year. Once determined that a skill is a requirement for being able to do the job, it is counted in the current skills supply.

Projected demand for occupations in New Hampshire is also forecast by using long-term projections, adding the annualized growth plus the net replacement openings. For occupations that have negative employment change during the projections period, the annualized growth would be zero. In that case, projected demand would be based on the replacement openings of the occupation.

This information provides an understanding of what kind of skills the current statewide workforce has, and what kind of abilities will be required in the future. It also provides insight into whether the current supply of these competencies will be adequate to meet New Hampshire's future demand.

O*NET⁹ Elements

The *Skills Based Employment Projections* system uses descriptors based on occupational definitions in the Standard Occupational Classification¹⁰ system. The three descriptors used in this projections system are *knowledge, skills, and work activities*.

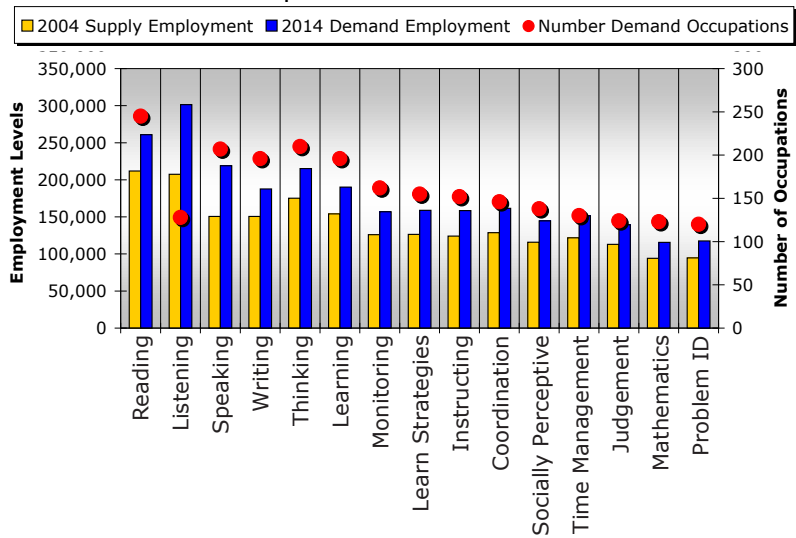
Skills are learned capabilities that allow workers to master and perform the specific activities of their jobs. These skill sets include elements such as *active learning, critical thinking, and mathematics applications*.

The New Hampshire data shows the importance of the ability to communicate both now and for future demand:

- ➡ *reading comprehension,*
- ➡ *active listening,*
- ➡ *speaking,*
- ➡ *and writing*

These were the top skills in both the current supply and future demand categories. *Critical thinking* and *active learning* also stayed in the top

Future New Hampshire Skills Demand 2004 to 2014



Skills	2004 Current Supply	2014 Projected Demand	Percent Rank	Replacement Index
Reading Comprehension	285,808	11,644	100.00	48.96
Active Listening	278,152	11,165	97.14	50.62
Speaking	246,434	10,325	94.29	47.54
Writing	213,456	8,792	91.43	48.13
Critical Thinking	203,011	8,321	88.57	47.51
Active Learning	188,914	7,859	85.71	47.18
Monitoring	168,471	7,064	77.14	46.45
Coordination	162,646	6,802	74.29	45.84
Learning Strategies	162,355	7,186	80.00	45.37
Instructing	162,310	7,248	82.86	43.52

Note: See complete table in appendix, page 58

⁹ The O*NET system serves as the nation's primary source of occupational information, providing comprehensive information on key attributes and characteristics of workers and occupations. The O*NET database houses this data and O*NET OnLine provides easy access to that information.

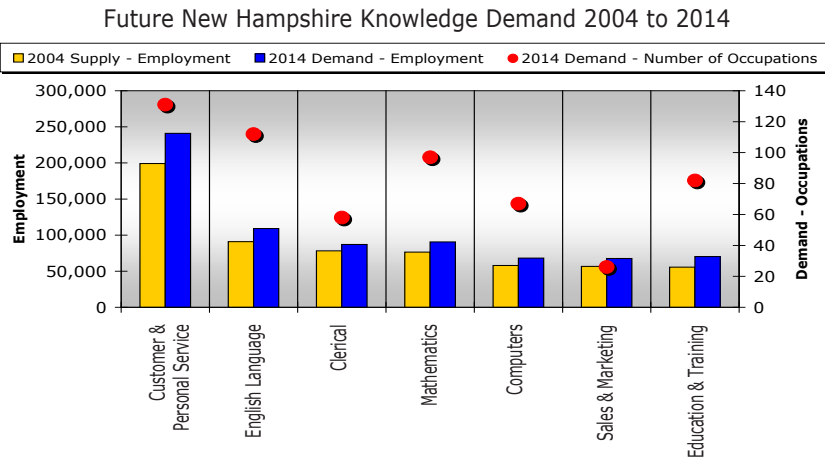
¹⁰ The Standard Occupational Classification (SOC) is a system for classifying all occupation in the economy, including private, public, and military occupations, providing a means to compare occupational data. *Standard Occupational Classification Manual, 2000*. Executive Office of the President, Office of Management and Budget, U.S. Department of Commerce. Published October 2000.

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ranks for current supply and future demand. Minor shifting in the order of the skills characteristics occurs after the top six elements.

Another component measure used is *knowledge*. Knowledge is a learned set of facts and standards that are required by many work situations. Among the characteristics included in

this category are *mathematics, biology, chemistry, and food preparation*. The current supply from the 2004 base year showed occupations in the state require knowledge of *customer and personal service* more than any other knowledge type. The results from the Skills Based Employment Projections showed that some level of the knowledge element, *customer and personal service*, is required in virtually all of New Hampshire's occupations.



Knowledge	2004 Current Supply	2014 Projected Demand	Percent Rank	Replacement Index
Customer and Personal Service	240,946	10,538	100.00	54.18
English Language	108,586	4,308	96.97	49.28
Clerical	94,248	3,129	81.82	62.90
Mathematics	82,986	3,112	90.91	51.80
Education and Training	75,742	3,465	93.94	43.12
Sales and Marketing	75,725	3,462	87.88	57.77
Computers and Electronics	60,965	2,241	78.79	51.67
Administration and Management	55,012	2,017	75.76	53.15
Psychology	48,926	2,362	84.85	42.25
Mechanical	47,544	1,787	69.70	60.66

Note: See complete table in appendix, page 59

The third descriptor is called *work activities*. These are the types of tasks or abilities that are common or necessary to perform many jobs. This group of elements includes information measuring work activities, for example, being able to *develop and build teams, to teach others, and to think creatively*. Among the 2004 New Hampshire occupations, being able to *establish and maintain interpersonal relationships* mirrored the state's need for people to work with the public. This element remained the highest among those *work activities* for future demand for 2014, with essentially every occupation in the state requiring at least some level of this element.

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Work activities	2004 Current Supply	2014 Projected Demand	Percent Rank	Replacement Index
Establishing and maintaining interpersonal relationships	312,666	13,741	100.00	53.60
Getting information needed to do the job	210,738	8,685	97.56	48.66
Communicating with supervisors, peers or subordinates	203,608	8,058	90.24	51.04
Organizing, planning and prioritizing work.	200,320	7,929	92.68	48.98
Updating and using job-relevant knowledge	191,593	8,041	95.12	48.39
Handling and moving objects	166,470	6,504	75.61	61.56
Making decisions and solving problems	150,413	6,289	85.37	45.51
Working directly with the public	146,822	7,248	82.93	57.26
Identifying objects, actions, and events	133,336	5,994	87.80	41.74
Processing information	132,511	5,241	78.05	49.80

Note: See complete table in appendix, page 60

Occupations within Skills Based Employment Projections

These *work activities*, *skills* and *knowledge* descriptors can be tied to the number and kind of jobs they represent.¹¹ With the importance of tourism, healthcare, and education to the New Hampshire economy, the fact that people skills were high on the list for *work activities*, *skills*, and *knowledge* is not really a surprise. So, what are the occupations that require the high demand qualities?

Skills

Comparing 2004 supply and 2014 demand, occupations that required specific skills were virtually the same, except for slight shifting in their ranking over the years. By 2014, over 370 occupations will account for the over 444,700 jobs statewide that have these necessary skills.

Communication-related skills are among the leading skill elements required for all occupations in the state. The most required skill found in 272 occupations, representing over 285,000 jobs, in New Hampshire is *reading comprehension*. Occupations in New Hampshire with the most projected employment in 2014 are *Registered nurses*, with over 16,000, *General office clerks* and *Teacher assistants*, with roughly 13,000 in each occupation, and *Nursing aides, orderlies and attendants* with almost 10,000 people in those jobs.

Reading Comprehension		
Code	SOC Title	2014 Employment
29-1111	Registered Nurses	16,239
43-9061	Office Clerks, General	13,218
25-9041	Teacher Assistants	12,380
31-1012	Nursing Aides, Orderlies, and Attendants	9,344
11-1021	General and Operations Managers	7,793
43-4171	Receptionists and Information Clerks	6,343
49-9042	Maintenance and Repair Workers, General	6,105
11-1011	Chief Executives	5,892
41-3021	Insurance Sales Agents	5,684
15-1031	Computer Software Engineers, Applications	5,344

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

¹¹ See Caveat in appendix (page 57) explaining why some occupations do not import into the Skills Based Employment Projections.

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Active listening is a skill that came in as being second highest demand by a very small margin. Two hundred nineteen occupations have almost the same number of employees as those requiring the *reading comprehension* skill in the state by 2014. The top two occupations with the highest employment levels requiring this skill are indicators of New Hampshire's industry strengths. *Retail salespersons* and *Cashiers* employ over 50,000 of those required to *actively listen*. *Registered nurses* capture another 16,000 workers and *Bookkeeping, accounting, and auditing clerks* employ almost 11,000.

Speaking and writing round out the skills with the highest employment demands by 2014 in New Hampshire. Each of these skills is necessary essential for more than 200,000 workers. *Registered nurses* hold the highest employment level among of occupations for both *speaking* and *writing* skills. Of the 210 occupations needing *speaking* skills, *Teacher assistants, Nursing aides, orderlies and attendants, and General and operations managers* have the subsequent highest levels with 12,300; 9,300; and roughly 8,000 workers, respectively.

Following *Registered nurses* in 2014, *writing* skills are required by 7,800 *General and operations managers*, by 6,300 *Receptionists and information clerks*, and roughly 5,800 of each of *Chief executives* and *Insurance sales agents*.

Active Listening

Code	SOC Title	2014 Employment
41-2031	Retail Salespersons	32,448
41-2011	Cashiers	22,379
29-1111	Registered Nurses	16,239
43-3031	Bookkeeping, Accounting, & Auditing Clerks	10,874
13-1199	Business Operations Specialists, All Other	10,057
31-1012	Nursing Aides, Orderlies, and Attendants	9,344
25-2021	Elementary School Teachers, Ex. Special Ed	8,806
43-6014	Secretaries, Except Legal, Medical, & Executive	7,908
11-1021	General and Operations Managers	7,793
11-1011	Chief Executives	5,892

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Speaking and Writing

Code	SOC Title	2014 Employment
29-1111	Registered Nurses	16,239
25-9041	Teacher Assistants	12,380
31-1012	Nursing Aides, Orderlies, and Attendants	9,344
11-1021	General and Operations Managers	7,793
43-4171	Receptionists and Information Clerks	6,343
11-1011	Chief Executives	5,892
41-3021	Insurance Sales Agents	5,684
15-1031	Computer Software Engineers, Applications	5,344
39-5012	Hairdressers, Hairstylists, and Cosmetologists	5,079
13-2011	Accountants and Auditors	4,485

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Knowledge

By 2014, it is expected that more than 240,000 employees in the state will require the knowledge *customer and personal service*. That will include 131 different occupations in New Hampshire. Understandably, with the strong retail environment in the state, *Retail salespersons* has the highest employment with this knowledge. The employment level of this occupation was followed by the levels of *Registered nurses*, *Waiters and waitresses*, and *General office clerks*.

New Hampshire's second most common knowledge element is the *English language*. There are just shy of 110,000 workers expected to possess this knowledge element by 2014. Obviously, there are many more workers in New Hampshire who can speak English. However, this number represents those in occupations that "require" the *English language* element. Among these occupations that have the highest employment are *Teacher assistants*, *Secretaries*, *General and operations managers*, and *Chief executives*.

The ability to organize, either oneself or the people and things around us, is still a highly coveted trait. *Clerical* knowledge has the third highest level of 2014 demand employment. *General office clerks* captured over 13,000 of the

Customer and Personal Service

Code	SOC Title	2014 Employment
41-2031	Retail Salespersons	32,448
29-1111	Registered Nurses	16,239
35-3031	Waiters and Waitresses	13,638
43-9061	Office Clerks, General	13,218
43-4051	Customer Service Representatives	10,767
31-1012	Nursing Aides, Orderlies, and Attendants	9,344
43-6014	Secretaries, Except Legal, Medical, and Executive	7,908
11-1021	General and Operations Managers	7,393
43-4171	Receptionists and Information Clerks	6,343
41-3021	Insurance Sales Agents	5,684

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

English Language

Code	SOC Title	2014 Employment
25-9041	Teacher Assistants	12,380
43-6014	Secretaries, Except Legal, Medical, & Executive	7,908
11-1021	General and Operations Managers	7,393
11-1011	Chief Executives	5,892
41-3021	Insurance Sales Agents	5,684
13-2011	Accountants and Auditors	4,485
43-6013	Medical Secretaries	3,555
15-1032	Computer Software Engineers, Systems Software	3,396
21-1093	Social and Human Service Assistants	2,924
29-2061	Licensed Practical & Licensed Vocational Nurses	2,775

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Clerical

Code	SOC Title	2014 Employment
43-9061	Office Clerks, General	13,218
43-3031	Bookkeeping, Accounting, and Auditing Clerks	10,874
43-6014	Secretaries, Except Legal, Medical, and Executive	7,908
13-2011	Accountants and Auditors	4,485
43-5071	Shipping, Receiving, and Traffic Clerks	3,865
43-6013	Medical Secretaries	3,555
21-1093	Social and Human Service Assistants	2,924
43-3021	Billing and Posting Clerks and Machine Operators	2,507
43-3011	Bill and Account Collectors	2,162
11-3021	Computer and Information Systems Managers	2,002

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

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estimated 90,000 jobs in New Hampshire that demand this knowledge. *Bookkeeping, accounting, and auditing clerks, Secretaries, and Accountants and auditors* also are occupations with high employment, which have this knowledge.

Understanding how to *apply mathematics* is the fourth most prevalent knowledge element in 2014. The 97 occupations that require some level of this knowledge will employ over 82,000 workers in New Hampshire. Over 4,000 of those are in some type of technician occupation. The logical requirements of math also parallel organizational aptitudes, so some of the occupations are similar to those requiring clerical abilities. *Bookkeeping, accounting, and auditing clerks* had the highest employment, followed by *General and operations managers, Chief executives, and Insurance sales agents*. Those in *Computer software engineer for applications* occupations also need a high level of this knowledge of how to *apply mathematics*.

Mathematics Applications

Code	SOC Title	2014 Employment
43-3031	Bookkeeping, Accounting, and Auditing Clerks	10,874
11-1021	General and Operations Managers	7,393
11-1011	Chief Executives	5,892
41-3021	Insurance Sales Agents	5,684
15-1031	Computer Software Engineers, Applications	5,344
13-2011	Accountants and Auditors	4,485
11-3031	Financial Managers	3,845
15-1032	Computer Software Engineers, Systems Software	3,396
29-2061	Licensed Practical and Licensed Vocational Nurses	2,775
11-9021	Construction Managers	2,476

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Work Activities

New Hampshire expects almost 400,000 jobs to be within 433 occupations that will need some level of expertise in certain *work activities*. Again the work activities with the highest employment levels are dictated by New Hampshire's economic strengths. It is also evident that these work activities intertwine, as multiple activities are required by the same occupations.

The ability to *establish and maintain interpersonal relationships* topped the list with 206 occupations, including some 300,000 employees needing some level of this attribute. *Retail salespersons* led the way representing over 30,000 of those jobs. *Registered nurses, and Waiters and waitresses* were strongly represented with roughly 15,000 workers in each field.

Establish and Maintain Interpersonal Relationships

Code	SOC Title	2014 Employment
41-2031	Retail Salespersons	32,448
29-1111	Registered Nurses	16,239
35-3031	Waiters and Waitresses	13,638
43-3031	Bookkeeping, Accounting, and Auditing Clerks	10,874
43-4051	Customer Service Representatives	10,767
43-6014	Secretaries, Except Legal, Medical, and Executive	7,908
11-1021	General and Operations Managers	7,393
43-4171	Receptionists and Information Clerks	6,343
11-1011	Chief Executives	5,892
41-3021	Insurance Sales Agents	5,684

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

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The task with the next highest employment level, employing almost 100,000 fewer, was the ability to *get information needed to do the job*. This trait is expected to be required by over 200,000 workers by 2014, with *Registered nurses, Teacher assistants, and Customer service representatives* as three of the 230 occupations with the highest projected employment levels.

Being able to *communicate with supervisors, peers or subordinates* is also a highly desired work activity, both in the current worker supply and the projected levels. Over 200,000 workers in New Hampshire will need this ability by 2014. Again, *Registered nurses* are required to have at least some level of expertise in this work activity.

The success of many jobs depends on the individual's ability to *organize, plan and prioritize work*. This will be required by over 170 occupations employing just over 200,000. *Registered nurses* will have the highest employment level, followed by *Bookkeeping, accounting, and auditing clerks, Customer service representatives, and Secretaries* also all find it necessary to possess this trait.

Get Information Needed To Do The Job

Code	SOC Title	2014 Employment
29-1111	Registered Nurses	16,239
25-9041	Teacher Assistants	12,380
43-4051	Customer Service Representatives	10,767
43-6014	Secretaries, Except Legal, Medical, and Executive	7,908
11-1021	General and Operations Managers	7,393
11-1011	Chief Executives	5,892
41-3021	Insurance Sales Agents	5,684
13-2011	Accountants and Auditors	4,485
11-3031	Financial Managers	3,845
43-6013	Medical Secretaries	3,555

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Communicate with Supervisors, Peers or Subordinates

Code	SOC Title	2014 Employment
29-1111	Registered Nurses	16,239
43-6014	Secretaries, Except Legal, Medical, and Executive	7,908
11-1021	General and Operations Managers	7,393
11-1011	Chief Executives	5,892
15-1031	Computer Software Engineers, Applications	5,344
13-2011	Accountants and Auditors	4,485
11-3031	Financial Managers	3,845
15-1032	Computer Software Engineers, Systems Software	3,396
33-3051	Police and Sheriff's Patrol Officers	3,254
47-2111	Electricians	3,182

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Organize, Plan And Prioritize Work

Code	SOC Title	2014 Employment
29-1111	Registered Nurses	16,239
43-3031	Bookkeeping, Accounting, and Auditing Clerks	10,874
43-4051	Customer Service Representatives	10,767
43-6014	Secretaries, Except Legal, Medical, and Executive	7,908
43-4171	Receptionists and Information Clerks	6,343
11-1011	Chief Executives	5,892
41-3021	Insurance Sales Agents	5,684
15-1031	Computer Software Engineers, Applications	5,344
39-9011	Child Care Workers	5,153
13-2011	Accountants and Auditors	4,485

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Skills Gap

A skills gap can be defined as the difference between the current supply of workers with specific skills in the workforce and the future demand of workers with the same skills. This gap is a product of the growth of demand for a skill plus the need to replace that skill. It is important to evaluate how many workers will be required to fill replacement needs as well as jobs generated through economic growth.

The different perspectives can result in different, although related, information. Either way the gap can be measured by the difference between the current employment level and the level of future demand.

Replacement Index – based on the highest replacement index score for 2014

Deep concerns arise in light of the number of those retiring and leaving the workforce, a trend labeled by some as *retirement brain drain*.¹² The challenge comes in replacing the knowledge, specific skills and work activities of these experienced people, especially in jobs that are difficult to fill.

A *replacement index* is the proportion of total openings in a job due to net replacements rather than job growth.¹³ The higher the value, the greater the share of openings from replacement needs, not new jobs or growth. Generally speaking that means the replacement index is

New Hampshire 2004-2014 Replacement Index

Skills		Knowledge		Work Activities	
Operation Monitoring	56	Production and Processing	74	Inspecting equipment, structures or materials	64
Repairing	55	Clerical	63	Handling and moving objects	62
Mgmt of Personnel Resources	53	Mechanical	61	Controlling machines and process	61
Negotiation	53	Philosophy and Theology	60	Drafting, laying-out, & specify tech devices, parts, equip	60
Equipment Maintenance	52	Sales and Marketing	58	Repairing and maintaining mechanical equipment	57
Active Listening	51	Public Safety and Security	57	Working directly with the public	57
Mgmt of Material Resources	50	Customer and Personal Service	54	Performing general physical activities	57
Mgmt of Financial Resources	49	Administration and Management	53	Repairing and maintaining electronic equipment	55
Reading Comprehension	49	Building and Construction	52	Selling or influencing others	54
Installation	48	Personnel and Human Resources	52	Establishing and maintaining interpersonal relationships	54
Writing	48	Mathematics	52	Guiding, directing and motivating subordinates	53
Mathematics	48	Computers and Electronics	52	Monitoring and controlling resources	52
Speaking	48	Fine Arts	51	Staffing organizational units	52
Critical Thinking	48	Physics	51	Performing administrative activities	52
Service Orientation	47	Law, Government and Jurisprudence	51	Communicating with persons outside the organizations	52

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

¹² Armed Forces Communications and Electronics Association (AFCEA), SIGNAL Connections, AFCEA International's Official e-Newsletter. *Baby Boomers and Retirement: Brain Drain or Opportunity?*. Friday, October 15, 2004. Volume 2 Issue 1. <www.imakenews.com/signal/e_article000313973.cfm?x=b11,0,w>. Brain drain has traditionally described educated workers from less developed countries moving to more developed countries to improve their pay or living conditions.

¹³ Skills Based Employment Projections System, produced by the Projections Workgroup. <dev.projectionscentral.com>.

the percent of all the job openings created by vacancies in existing jobs. Rarely will jobs with high replacement indexes be found with the fastest growing occupations.

Skills

New Hampshire will need to find new workers who have *operation monitoring* skills by 2014. This skill is found in goods-producing industries, and although overall Manufacturing is not growing, this skill has the highest replacement index in the state. Roughly 56 percent of all the workers hired with the *operation monitoring* skill will be to cover employee replacement needs. Forty-three occupations will need over 3,400 replacement workers with this skill by 2014. This includes *Machinists*, with over 500 workers needed by 2014, followed closely by *Licensed practical and licensed vocational nurses* needing 477. *Fire fighters* and *Industrial truck and tractor operators* have the next highest replacement numbers for this skill. Again these replacements do not include positions created because of growth.

Not far behind, with a replacement index of 55, is the *repairing* skill element. This is a hands-on skill that will need 3,883 replacement workers in 23 occupations in New Hampshire. The highest number of replacement jobs that require the *repairing* skill element are *Automotive service technicians and mechanics*, with almost 1,200 replacements. *General maintenance and repair workers* will need 990 replacement workers by 2014, followed by *Electrical and electronic engineering technicians*, *Industrial machinery mechanics*, *Computer support specialists*, and *Automotive body and related repairers* which will each need over 200 workers.

Operation Monitoring

Code	SOC Title	Current (2004)	Replace (2014)
51-4041	Machinists	2,331	508
29-2061	Licensed Practical and Licensed Vocational Nurses	2,775	477
33-2011	Fire Fighters	1,724	401
53-7051	Industrial Truck and Tractor Operators	1,784	303
49-9098	Helpers--Installation/Maintenance/Repair Workers	985	192
49-9021	Heating/AC/Refrigeration Mechanics & Installers	1,659	189
29-2011	Medical and Clinical Laboratory Technologists	665	146
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	732	139
51-8031	Water/Liquid Waste Treatment Plant/System Opers	417	127
53-2021	Air Traffic Controllers	454	106
15-1081	Network Systems and Data Communications Analysts	1,096	83
51-8013	Power Plant Operators	262	72
51-4194	Tool Grinders, Filers, and Sharpeners	214	71
19-2031	Chemists	224	65
49-9062	Medical Equipment Repairers	233	55

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Repairing

Code	SOC Title	Current (2004)	Replace (2014)
49-3023	Automotive Service Technicians and Mechanics	5,397	1,189
49-9042	Maintenance and Repair Workers, General	6,105	990
17-3023	Electrical and Electronic Engineering Technicians	1,515	279
49-9041	Industrial Machinery Mechanics	1,298	268
15-1041	Computer Support Specialists	2,633	263
49-3021	Automotive Body and Related Repairers	1,334	246
47-4051	Highway Maintenance Workers	1,619	191
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	732	139
49-3052	Motorcycle Mechanics	314	64
49-9062	Medical Equipment Repairers	233	55
49-3051	Motorboat Mechanics	265	52
49-9044	Millwrights	195	43
49-3041	Farm Equipment Mechanics	129	26
17-3024	Electro-Mechanical Technicians	114	20
49-2021	Radio Mechanics	92	18

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

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It makes sense that *General and operations managers* and *Chief executives* will be among the jobs skilled in the *management of personnel resources* element, with a combined replacement need of over 2,100 jobs by 2014. This skill carries with it a replacement index of 53, indicating that 53 of every 100 workers hired with this skill will be for replacement needs. Many managers and analysts, and occupations with advanced educational degrees require this skill.

The *negotiations* skill element had the same replacement value of 53. The replacement needs for occupations requiring this skill also include many occupations with high training and experience requirements. The largest volume of these replacement workers will be from *Insurance sales agents* and *General and operations managers*, combining for about 2,500 jobs by 2014.

Knowledge

The *knowledge* that workers obtain by being on the job is one of the more challenging elements to measure as well as being difficult to replace. The knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods is part of the knowledge element *production and processing*. By definition this element is related to many goods-producing occupations, which are becoming increasingly more difficult to fill because of their association with industries experiencing negative growth. The replacement index for this knowledge is 74, indicating that almost three-quarters

Management of Personnel Resources

Code	SOC Title	Current (2004)	Replace (2014)
11-1021	General and Operations Managers	7,393	1,166
11-1011	Chief Executives	5,892	937
29-2061	Licensed Practical and Licensed Vocational Nurses	2,775	477
11-3031	Financial Managers	3,845	473
39-9032	Recreation Workers	1,839	349
11-2022	Sales Managers	2,166	323
11-9051	Food Service Managers	2,063	293
23-1011	Lawyers	2,456	268
13-1111	Management Analysts	2,139	230
11-2021	Marketing Managers	1,514	229
11-9111	Medical and Health Services Managers	1,408	215
17-2071	Electrical Engineers	1,280	215
11-3051	Industrial Production Managers	998	187
11-3011	Administrative Services Managers	1,138	185
11-9033	Education Administrators, Postsecondary	775	163

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system. Based Projections.

Negotiation

Code	SOC Title	Current (2004)	Replace (2014)
41-3021	Insurance Sales Agents	5,684	1,293
11-1021	General and Operations Managers	7,393	1,166
11-1011	Chief Executives	5,892	937
17-2141	Mechanical Engineers	1,834	436
11-2022	Sales Managers	2,166	323
41-9022	Real Estate Sales Agents	1,856	315
11-3021	Computer and Information Systems Managers	2,002	284
23-1011	Lawyers	2,456	268
11-2021	Marketing Managers	1,514	229
11-9041	Engineering Managers	1,223	210
17-2112	Industrial Engineers	939	188
13-1051	Cost Estimators	949	174
11-9033	Education Administrators, Postsecondary	775	163
17-2051	Civil Engineers	1,159	159
21-1014	Mental Health Counselors	833	143

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system. Based Projections.

Production and Processing

Code	SOC Title	Current (2004)	Replace (2014)
17-2141	Mechanical Engineers	1834	436
43-5061	Production, Planning, and Expediting Clerks	1374	313
17-2112	Industrial Engineers	939	188
11-3051	Industrial Production Managers	998	187
17-2072	Electronics Engineers, Except Computer	1040	177
41-9031	Sales Engineers	427	105
17-3026	Industrial Engineering Technicians	456	85
11-2011	Advertising and Promotions Managers	368	51
27-1011	Art Directors	234	44
27-1021	Commercial and Industrial Designers	184	23
17-2041	Chemical Engineers	70	19
11-3061	Purchasing Managers	487	10
51-8091	Chemical Plant and System Operators	22	8
13-1021	Purchasing Agents and Buyers, Farm Products	16	5
17-2011	Aerospace Engineers	12	3

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system. Based Projections.

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of workers hired with this knowledge trait will be to replace people leaving the occupation. *Mechanical engineers*, and *Production, planning, and expediting clerks* lead the way needing over 400 and 300 replacement workers, respectively. *Industrial engineers*, *Industrial production managers*, *Electronics engineers* (who don't work on computers) will each have just shy of 200 vacancies by 2014.

General clerical duties will be affected by the increasing use of computers, expanding office automation and consolidation of clerical tasks. With the large number of occupations requiring this knowledge, there are large replacement needs for individuals with *clerical* knowledge.¹⁴ During the 10-year projection period, this knowledge element has a replacement index of 63. Of the expected 16,200 related replacement jobs in the state, 2,600 will be for *General office clerks*, and 1,900 for *Bookkeeping, accounting, and auditing clerks*. *Secretaries* (except those who do legal, medical, and executive work) will also be looking to replenish more than 1,500 positions.

The more technology grows the less attractive manual labor type jobs seem to become. The *mechanical* knowledge element has a replacement index of 61, meaning three out of every five people hired with this knowledge will be needed to succeed someone who is leaving. *Automotive service technicians and mechanics* anticipate filling almost 1,200 vacancies (excluding new jobs) while *Maintenance and general repair workers* will have to fill almost 1,000 by 2014. Also, the *philosophy and theology* knowledge element, which has a replacement index of 60, will be looking to fill 200 *Clergy* jobs and 13 *Psychiatrists* by 2014.

Clerical

Code	SOC Title	Current (2004)	Replace (2014)
43-9061	Office Clerks, General	13,218	2,668
43-3031	Bookkeeping, Accounting, & Auditing Clerks	10,874	1,889
43-6014	Secretaries, Ex. Legal, Medical, & Executive	7,908	1,527
43-5071	Shipping, Receiving, and Traffic Clerks	3,865	750
13-2011	Accountants and Auditors	4,485	697
43-6013	Medical Secretaries	3,555	559
43-4081	Hotel, Motel, and Resort Desk Clerks	1,353	521
43-3021	Billing & Posting Clerks & Machine Operators	2,507	405
21-1093	Social and Human Service Assistants	2,924	370
39-9032	Recreation Workers	1,839	349
43-9021	Data Entry Keyers	1,387	330
43-3011	Bill and Account Collectors	2,162	320
41-9022	Real Estate Sales Agents	1,856	315
43-4121	Library Assistants, Clerical	880	314
43-5061	Production, Planning, and Expediting Clerks	1,374	313

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Mechanical

Code	SOC Title	Current (2004)	Replace (2014)
49-3023	Automotive Service Technicians & Mechanics	5,397	1,189
49-9042	Maintenance and Repair Workers, General	6,105	990
47-2152	Plumbers, Pipefitters, and Steamfitters	3,004	557
47-2111	Electricians	3,182	527
51-4041	Machinists	2,331	508
17-2141	Mechanical Engineers	1,834	436
33-2011	Fire Fighters	1,724	401
11-9021	Construction Managers	2,476	392
49-9041	Industrial Machinery Mechanics	1,298	268
49-3021	Automotive Body and Related Repairers	1,334	246
47-4051	Highway Maintenance Workers	1,619	191
17-2112	Industrial Engineers	939	188
11-3051	Industrial Production Managers	998	187
51-2023	Electromechanical Equipment Assemblers	711	179
49-3042	Mobile Heavy Equip. Mechanics, Ex Engines	732	139

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Philosophy and Theology

Code	SOC Title	Current (2004)	Replace (2014)
21-2011	Clergy	1082	199
29-1066	Psychiatrists	124	13

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

¹⁴ Occupational Outlook Handbook 2002-2003, US Department of Labor, Bureau of Labor Statistics. Bulletin 2540, "Office Clerks, General." p419. 2002.

Work Activities

Titles of *work activities* elements are not as concise as other descriptors. The highest four replacement index values are each over 60, indicating very high replacement needs. There will be 3,440 workers needed by 2014 to fill the void left by people who possessed the ability to *inspect equipment, structures, or materials* in New Hampshire. *Electrical and electronic equipment assemblers* will account for 622 of those, followed by 400 *Fire fighters*. *Construction managers* will also need just shy of 400 to replenish their numbers.

Inspecting Equipment, Structures or Materials

Code	SOC Title	Current (2004)	Replace (2014)
51-2022	Electrical and Electronic Equipment Assemblers	2747	622
33-2011	Fire Fighters	1724	401
11-9021	Construction Managers	2476	392
49-9041	Industrial Machinery Mechanics	1298	268
15-1041	Computer Support Specialists	2633	263
11-3051	Industrial Production Managers	998	187
33-3012	Correctional Officers and Jailers	917	180
17-2072	Electronics Engineers, Except Computer	1040	177
29-2011	Medical and Clinical Laboratory Technologists	665	146
29-1126	Respiratory Therapists	488	125
17-2061	Computer Hardware Engineers	519	79
47-4011	Construction and Building Inspectors	413	76
49-9062	Medical Equipment Repairers	233	55
49-9044	Millwrights	195	43
49-3011	Aircraft Mechanics and Service Technicians	236	42
29-2055	Surgical Technologists	384	39

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system. Based Projections.

While equipment improvements, including automation, will increase productivity and moderate the demand for material moving occupations, numerous openings will be spurred by the relatively high turnover rate.¹⁵ The *handling and moving objects* work activity element expects over 6,500 new jobs from growth in the state by 2014. The replacement index of 62 represents more than 24,700 workers that will be needed to fill vacancies created by exiting workers. Of those, 3,639 will be *Stock clerks and order fillers*, and *Heavy and tractor-trailer truck drivers* and *Automotive service technicians and mechanics* will need roughly 1,200 each.

Handling and Moving Objects

Code	SOC Title	Current (2004)	Replace (2014)
43-5081	Stock Clerks and Order Fillers	9,849	3,639
53-3032	Truck Drivers, Heavy and Tractor-Trailer	8,747	1,220
49-3023	Automotive Service Technicians and Mechanics	5,397	1,189
37-2012	Maids and Housekeeping Cleaners	6,015	1,072
47-2031	Carpenters	7,111	993
49-9042	Maintenance and Repair Workers, General	6,105	990
39-5012	Hairdressers, Hairstylists, and Cosmetologists	5,079	807
47-2061	Construction Laborers	5,355	600
47-2152	Plumbers, Pipefitters, and Steamfitters	3,004	557
47-2111	Electricians	3,182	527
51-4041	Machinists	2,331	508
53-7064	Packers and Packagers, Hand	3,095	505
43-5052	Postal Service Mail Carriers	1,563	492
35-2012	Cooks, Institution and Cafeteria	1,677	462
53-7061	Cleaners of Vehicles and Equipment	1,483	456
53-3033	Truck Drivers, Light or Delivery Services	5,181	412

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system. Based Projections.

¹⁵ IBID, "Material Moving Occupations." p569.

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Because employment in Manufacturing industries is declining, it is a surprise to many people that there are still job opportunities in these industries. There is a diminishing interest in developing the ability to use either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles) associated with Manufacturing occupations. This work trait is called *controlling machines and processes* and has a replacement index of 61. New Hampshire will need 2,900 workers with this trait to replace those leaving these occupations by 2014. *Machinists* will have the largest void to fill, needing 500 workers, followed by *Fire fighters'* 400. *Industrial machinery mechanics* and *Highway maintenance workers* will require around 300 and 200 replacements respectively.

The *drafting, laying out, and specifying technical devices, parts, and equipment* element has a replacement index of 60, representing three of every five people hired who can master this work activity. *Architectural and civil drafters* will account for 222 of the 1,224 vacancies in the state by 2014. *Industrial engineers* will need 188 workers and *Electronics engineers* (except those who work on computers) will need 177 to fill their numbers.

Controlling Machines and Processes

Code	SOC Title	Current (2004)	Replace (2014)
51-4041	Machinists	2,331	508
33-2011	Fire Fighters	1,724	401
49-9041	Industrial Machinery Mechanics	1,298	268
47-4051	Highway Maintenance Workers	1,619	191
11-3051	Industrial Production Managers	998	187
29-2034	Radiologic Technologists and Technicians	1,080	156
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	732	139
29-1126	Respiratory Therapists	488	125
51-4111	Tool and Die Makers	439	100
17-3027	Mechanical Engineering Technicians	520	93
47-3013	Helpers--Electricians	225	86
47-5021	Earth Drillers, Except Oil and Gas	329	57
47-2221	Structural Iron and Steel Workers	346	56
45-4022	Logging Equipment Operators	325	51
49-9043	Maintenance Workers, Machinery	190	43
49-9044	Millwrights	195	43

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Drafting, Laying-out, & Specify Tech Devices, Parts, or Equip.

Code	SOC Title	Current (2004)	Replace (2014)
17-3011	Architectural and Civil Drafters	822	222
17-2112	Industrial Engineers	939	188
17-2072	Electronics Engineers, Except Computer	1,040	177
17-2051	Civil Engineers	1,159	159
41-9031	Sales Engineers	427	105
17-2061	Computer Hardware Engineers	519	79
17-3012	Electrical and Electronics Drafters	253	68
17-3013	Mechanical Drafters	252	67
27-1025	Interior Designers	468	55
17-1011	Architects, Except Landscape and Naval	315	31
17-3022	Civil Engineering Technicians	139	26
19-2012	Physicists	74	21
17-1012	Landscape Architects	179	17
17-3021	Aerospace Engineering and Operations Technicians	22	4
17-2011	Aerospace Engineers	12	3
17-2161	Nuclear Engineers	9	2

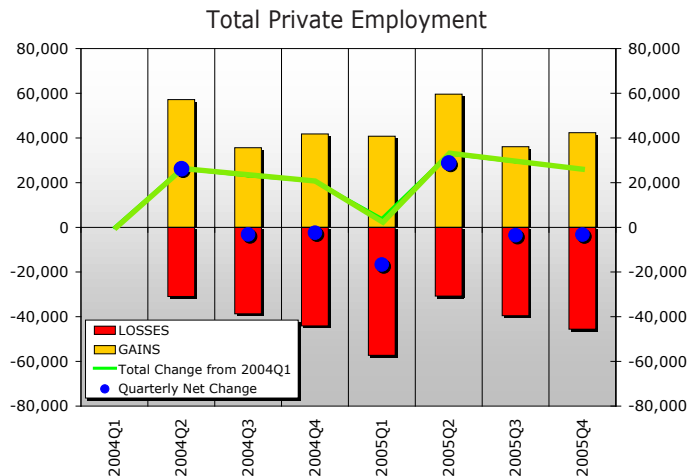
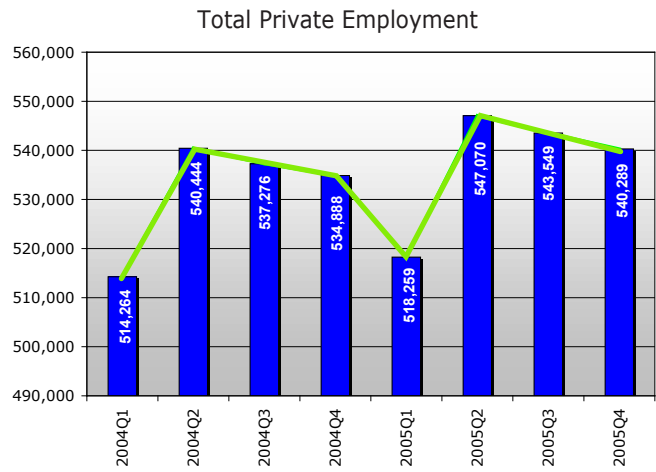
Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Business Employment Dynamics

Quarterly total private employment levels show the effect of seasonal changes from quarter to quarter, as well as long-term growth. That trend line has become familiar to those who follow statewide employment changes.

While New Hampshire's total private employment level changed slightly from third quarter 2005 to fourth quarter 2005, there was a lot of change in employment at the individual firm level. New data now includes *gross job gains* and *gross job losses*, called Business Employment Dynamics (BED). *Gross job gains* and *gross job losses* are calculated on an establishment-level basis, and aggregated to allow a look at the dynamics behind the net changes being reported.¹⁶ Simply put, the *gross jobs lost* sums the employment declines of individual companies that lost employment during the quarter, while *gross jobs gained* sums the employment increases of companies that gained employment during the quarter. Combining the "lost" and "gained" elements results in the net change in jobs over the quarter. These net changes from quarter to quarter are what determine the direction of the total net employment change.

New Hampshire's quarterly *gross jobs gained* and *gross jobs lost* data series is relatively new and the historic base only goes back seven quarters. We selected a few prominent industry sectors as examples of the information that gross job changes can provide.

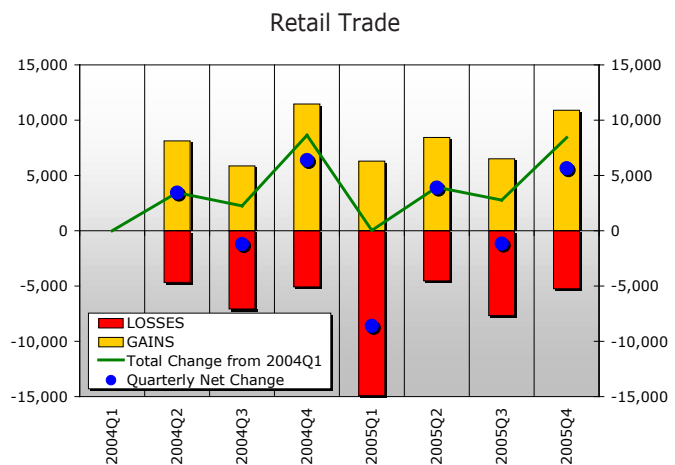


¹⁶ Monthly Labor Review. "Business employment dynamics: new data on gross job gains and losses." James R Spletzer, R. Jason Faberman, Akbar Sadeghi, David M. Talan, and Richard L. Clayton. US Department of Labor, Bureau of Labor Statistics. April 2004.

Even with such a short historical base, it is possible to assess the seasonal fluctuations of employment levels, of total private employment and among the individual industries. The quarterly changes in total private employment reveal the typical seasonal push of employment increases from first quarter to second when the summer tourist season kicks in. Schools opening and the holiday retail seasons keep employment change relatively stable over the third and fourth quarters. Finally it shows the typical drop of employment level going from the holiday season into the new year. Those trends have long been established as expected parts of New Hampshire's annual economic cycle. The additional perspective that the *gross job gains* and *gross job losses* provides is the ability to assess what is behind the net change.

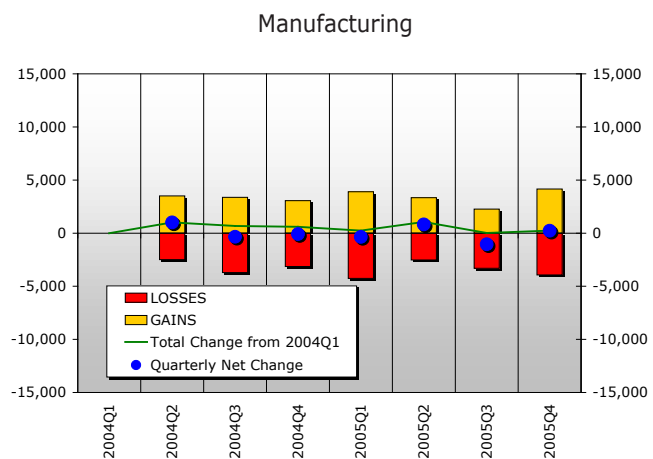
Retail Trade

For example, New Hampshire's largest employing industry is Retail trade. It thrives on the summer tourism season, anticipates back to school shoppers and increases its employment levels to accommodate holiday shoppers. The gross job gains and losses reveal that, although there is a decline in overall employment levels some quarters, on an establishment-level basis there were some job gains, just not enough to outweigh the losses.



Manufacturing

These dynamics become especially interesting in industries that have been struggling in recent years, specifically Manufacturing. The state's economy has been shifting from the historically strong goods-producing environment to one that emphasizes services. Outsourcing of labor to less expensive countries, proximity to resources, and lowering costs of transporting products have all contributed to the turnabout in labor concentrations. Since the boom of the late 1990s,

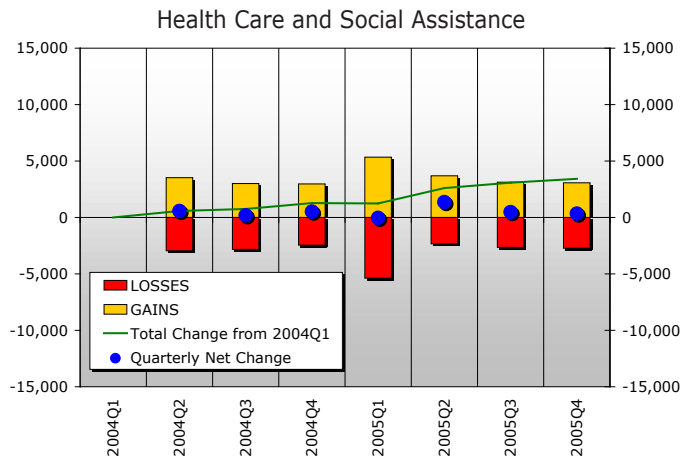


Manufacturing employment levels in New Hampshire have been declining. In this dreary setting, it is no wonder that Manufacturing companies in the state are frustrated over the negative publicity and the difficulties they experience recruiting workers to their companies.

The slight net fluctuations in the Manufacturing employment mask the growth that is occurring at the establishment level. The news that overall Manufacturing employment declined, whether it is 100 or 500 over the quarter, hides the reality that there are in the neighborhood of 2,000 and 4,000 new jobs each quarter created in the industry. The *gross jobs gained* and *gross jobs lost* data helps Manufacturing employers support their claim of a very real need for workers who possess those specific skills.

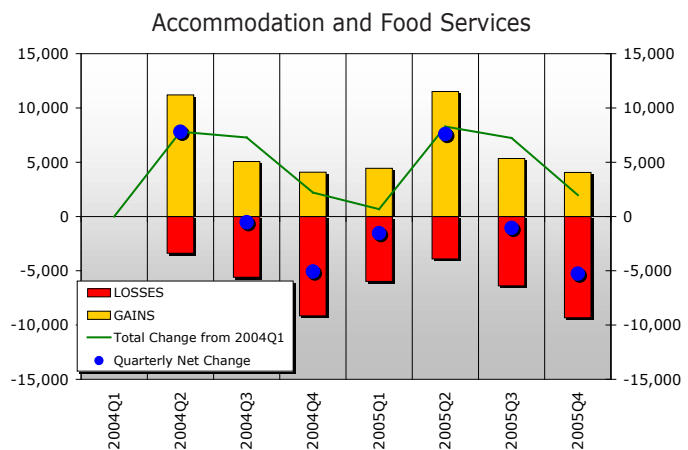
Health Care and Social Assistance

Statewide employment in Health care and social assistance has been increasing and is predicted to continue to grow. Employment changes in this industry sector are more closely related to population changes, and New Hampshire's population has been expanding at a steady rate. This industry doesn't exhibit obvious seasonal patterns.



Accommodation and Food Services

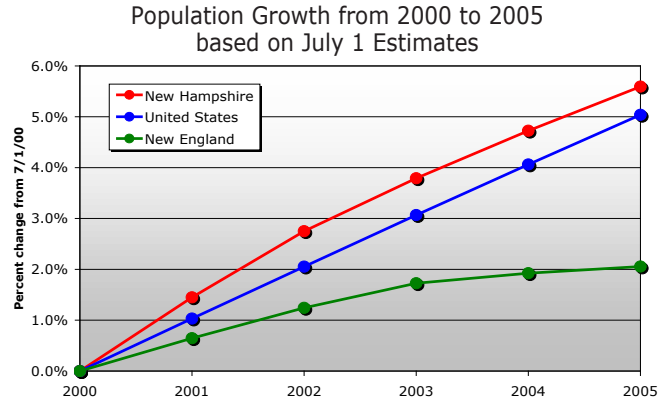
New Hampshire relies on its tourist seasons and specific events, like motorcycle Bike Week and NASCAR races, and the Highland Games. Tourists also depend on the availability of places to eat and drink. Accommodation and food services is another industry with high employment levels and distinct seasonal changes. This industry experiences a lot of employment churning, *gross jobs gained* combined with *gross job losses*, each quarter.



New Hampshire Population Trends

Population Growth Since 2000

New Hampshire has grown the fastest of the New England states from July 1, 2000 to July 1, 2005, based on the latest U.S. Census Bureau American Community Survey estimates.¹⁷ In fact it is the only state in the region to have grown at a faster rate than the U.S. over that time period, with New Hampshire growing by 5.6 percent while the nation grew by 5.0 percent and New England by 2.1 percent.



Aging of the New Hampshire Population

Median Age

Upon the release of the 2005 American Community Survey estimates by the U.S. Census Bureau this summer, much was made of the fact that New Hampshire, with a median age of 39.5, ranked sixth highest among the states. To put that in perspective, however, all of the New England states had median ages above the U.S. median of 36.4 with Maine and Vermont holding down the top two positions while Massachusetts, with the region's lowest, at 38.2 could only muster fourteenth place. Much of the reason that the New England population is aging relatively faster than the U.S. as a whole has to do with the fact that the region is losing population share to faster-growing states in the South and the West. People are moving to hot growth states for increased economic opportunities. It is the younger population cohort that is most mobile. They have not yet set down firm roots in their communities; they may not yet have children in school, or if they do, they are in the lower grades. It is much harder to move teenagers away from their classmates. So the rising median age of the state's population is not so much a state issue as a New England issue and a Northeast issue.

Median Age of the Population
2005 American Community Survey

Rank	State	Median
1	Maine	41.2
2	Vermont	40.7
6	New Hampshire	39.5
8	Connecticut	39.3
13	Rhode Island	38.4
14	Massachusetts	38.2
	United States	36.4

¹⁷ American Factfinder. US Census Bureau. Accessed September 19, 2006. <factfinder.census.gov/servlet/SAFFPopulation?_submenuId=population_0&_sse=on>.

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New England States' Population Ranked by Age Characteristics

Area	Under 18	U.S. Rank	18 to 24	U.S. Rank	25 to 44	U.S. Rank	45 to 64	U.S. Rank	65 and older	U.S. Rank
New Hampshire	24.2%	35	8.1%	47	28.4%	21	27.8%	6	11.5%	37
Connecticut	24.6%	30	7.6%	50	28.4%	22	26.5%	7	12.9%	12
Maine	22.1%	49	8.4%	43	26.9%	44	28.7%	3	13.9%	6
Massachusetts	23.5%	44	7.9%	49	30.3%	5	25.6%	19	12.8%	17
Rhode Island	23.5%	43	8.5%	42	29.0%	15	25.6%	20	13.4%	9
Vermont	22.5%	48	8.0%	48	27.0%	41	29.7%	1	12.7%	19
United States	25.5%	-	9.2%	-	28.8%	-	24.5%	-	12.0%	-
New England	23.7%	-	8.0%	-	29.1%	-	26.5%	-	12.8%	-

Within New England, New Hampshire's median age falls in the middle. Massachusetts has the lowest median age, because it contains the region's urban core. For the youth of northern New England who want to live an urban lifestyle for awhile and take advantage of the cultural amenities that a major city offers, Boston is the "local" option. It is the regional education, economic, business, and financial center – the place to get a high quality education, a first career job, and important career experience, while participating in a youth culture unmatched anywhere else in the country. A Boston Redevelopment Authority study, *Boston's Dynamic Workforce*, citing 2000 Census data, notes that Boston has the 2nd highest percentage of its population formed by the 20-34 age group of any major city in the country.¹⁸ Crossing the Charles River to add Cambridge, 41 percent of whose population falls into the 20-34 age group further consolidates the youth draw to the region.¹⁹

Shifts in youth population in New Hampshire and New England are explained, in part, by the relatively high rate of mobility among its postsecondary student population.

Share of a state's postsecondary freshmen enrolled out-of-state			Share of a state's enrolled postsecondary freshmen originating from out-of-state		
rank	state	share	rank	state	share
1	Vermont	71%	1	Vermont	57%
2	Rhode Island	57%	2	New Hampshire	45%
3	Delaware	51%	3	New Jersey	43%
4	Wyoming	48%	4	Connecticut	42%
5	New Hampshire	47%	5	Alaska	40%
6	North Dakota	44%	6	Maine	38%
7	Massachusetts	38%	7	Maryland	37%
8	Connecticut	36%	8	Rhode Island	36%
9	Utah	32%	9	Delaware	34%
10	Idaho	32%	10	Hawaii	33%
11	West Virginia	32%	11	Massachusetts	32%
12	South Dakota	29%		United States	19%
13	Pennsylvania	28%			
14	Maine	28%			
	United States	20%			

Source: U.S. Department of Education, National Center for Education Statistics, 2004 Integrated Postsecondary Education Data System (IPEDS), Spring 2005. Table 203. Residence and migration of all freshmen students in degree-granting institutions who graduated from high school in the previous 12 months, by state or jurisdiction: Fall 2004 (This table was prepared September 2005.)

¹⁸ *Boston's Dynamic Workforce, The City of Boston's 20-34 Year Old Initiative*: page 11, "Table 2. 20-34-year-old population in 25 largest cities." <www.cityofboston.gov/bra/pdf/documents/20-34Report.pdf#search=%22boston%20young%20adult%20culture%22>.

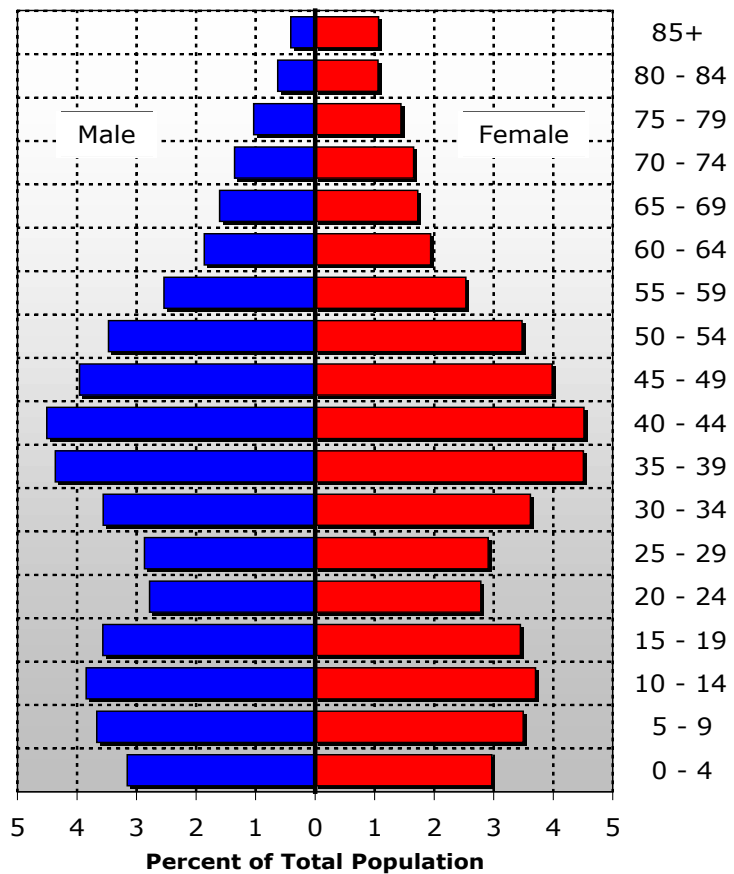
¹⁹ U.S. Census Bureau. "DP-1. Profile of General Demographic Characteristics: 2000 Data Set: Census 2000 Summary File 1 (SF 1) 100-Percent Data Geographic Area: Cambridge city, Massachusetts".

New Hampshire's southeastern counties provide a suburban life when its youth and youth from Massachusetts and other New England states have had their fill of city life and are looking for a detached house with a garage and a couple of acres to landscape or garden. That's where New Hampshire's appeal is, but it is an older group that is attracted to these sorts of amenities. So 30 percent of the Massachusetts population is age 25 to 44, ranking it fifth, while New Hampshire ranks 21st with 28 percent. Twenty-eight percent of New Hampshire's population is 45 to 64 while twenty-six percent of Massachusetts residents fall into that bracket.

The Progress of the Baby Boom

Aside from issues of in- and out-migration, as with the rest of the country, New Hampshire's future labor force will be affected by the graying and retiring of the baby boomers. The oldest baby boomers reach age 60 this year. The population pyramid for 2000 gives a sense of how this can be expected to play out in New Hampshire. Every year, the bulge advances. There are fewer younger residents to enter the workforce. The echo of the baby boomer generation, also referred to as "generation Y" or the "millennial" generation, is just beginning to enter the labor force, but these age cohorts are smaller than the baby boomer cohorts now reaching retirement age.

2000 New Hampshire Population Pyramid



Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005, Internet Release Date: April 21, 2005.

Average Annual Pay in New Hampshire

Average annual pay has been increasing faster in New Hampshire than in New England and the United States. Average pay for both New Hampshire and New England was higher than for the nation in 2005. Between 2001 and 2005 the state passed the U.S. and widened the gap even while the region lost ground. Pay in New Hampshire for all private industries grew by more than 14 percent from 2001 to 2005 while U.S. pay grew by 12 percent and New England pay grew by less than 12 percent. In each year New Hampshire pay growth exceeded U.S. pay growth.

Private Average Annual Pay

Year	New Hampshire		New England		United States	
	Pay	Change	Pay	Change	Pay	Change
2001	\$35,955	—	\$42,240	—	\$36,157	—
2002	\$36,594	1.8%	\$42,232	-0.0%	\$36,539	1.1%
2003	\$37,685	3.0%	\$43,494	3.0%	\$37,508	2.7%
2004	\$39,542	4.9%	\$45,760	5.2%	\$39,134	4.3%
2005	\$41,020	3.7%	\$47,139	3.0%	\$40,499	3.5%
01 to '05 change	\$5,064	14.1%	\$4,899	11.6%	\$4,342	12.0%

NH Private Industries Pay Compared to NE and U.S.

Year	NE	U.S.
2001	85.1%	99.4%
2002	86.6%	100.2%
2003	86.6%	100.5%
2004	86.4%	101.0%
2005	87.0%	101.3%
01 to '05 change	1.9	1.8

Goods-producing Average Annual Pay

Year	New Hampshire		New England		United States	
	Pay	Change	Pay	Change	Pay	Change
2001	\$43,803	—	\$48,742	—	\$41,015	—
2002	\$45,144	3.1%	\$49,543	1.6%	\$41,870	2.1%
2003	\$46,203	2.3%	\$51,069	3.1%	\$43,154	3.1%
2004	\$48,285	4.5%	\$52,897	3.6%	\$44,776	3.8%
2005	\$49,838	3.2%	\$54,393	2.8%	\$46,275	3.3%
01 to '05 change	\$6,035	13.8%	\$5,651	11.6%	\$5,260	12.8%

NH Goods-producing Pay Compared to NE and U.S.

Year	NE	U.S.
2001	89.9%	106.8%
2002	91.1%	107.8%
2003	90.5%	107.1%
2004	91.3%	107.8%
2005	91.6%	107.7%
01 to '05 change	1.8	0.9

Manufacturing Annual Average Pay

Year	New Hampshire		New England		United States	
	Pay	Change	Pay	Change	Pay	Change
2001	\$57,184	—	\$57,502	—	\$42,969	—
2002	\$61,338	7.3%	\$59,545	3.6%	\$44,097	2.6%
2003	\$64,169	4.6%	\$61,953	4.0%	\$45,916	4.1%
2004	\$67,483	5.2%	\$64,564	4.2%	\$47,861	4.2%
2005	\$69,689	3.3%	\$66,628	3.2%	\$49,286	3.0%
01 to '05 change	\$12,506	21.9%	\$9,126	15.9%	\$6,317	14.7%

NH Manufacturing Pay Compared to NE and U.S.

Year	NE	U.S.
2001	99.4%	133.1%
2002	103.0%	139.1%
2003	103.6%	139.8%
2004	104.5%	141.0%
2005	104.6%	141.4%
01 to '05 change	5.1	8.3

Service-providing Annual Average Pay

Year	New Hampshire		New England		United States	
	Pay	Change	Pay	Change	Pay	Change
2001	\$33,485	—	\$40,567	—	\$34,727	—
2002	\$34,168	2.0%	\$40,475	-0.2%	\$35,045	0.9%
2003	\$35,364	3.5%	\$41,746	3.1%	\$35,981	2.7%
2004	\$37,199	5.2%	\$44,142	5.7%	\$37,629	4.6%
2005	\$38,691	4.0%	\$45,528	3.1%	\$38,967	3.6%
01 to '05 change	\$5,205	15.5%	\$4,961	12.2%	\$4,241	12.2%

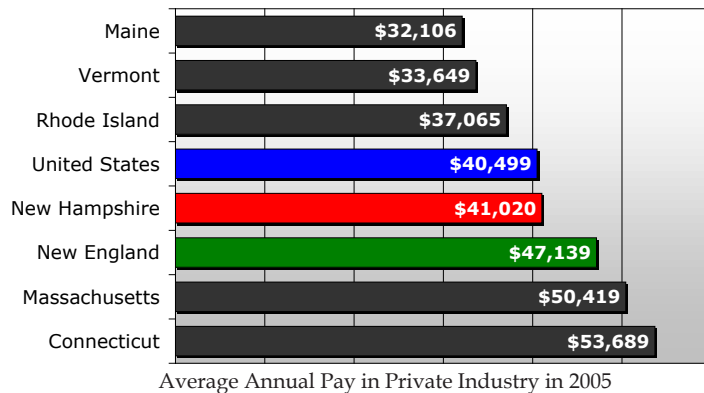
NH Service-providing Pay Compared to NE and U.S.

Year	NE	U.S.
2001	82.5%	96.4%
2002	84.4%	97.5%
2003	84.7%	98.3%
2004	84.3%	98.9%
2005	85.0%	99.3%
01 to '05 change	2.4	2.9

The same pattern held true for goods-producing and service-providing industries. New Hampshire goods-producing industries pay grew by nearly 14 percent. Even with Manufacturing's cut backs the pay in that sector has increased as well. Since Manufacturing is the largest among the goods-producing sectors, it generally drives those numbers. In New Hampshire, which has a relatively high share of employment in Manufacturing and very small Agriculture and Mining sectors, this effect is even more pronounced.

The increase over the five-year period for New Hampshire average annual Manufacturing pay was nearly 22 percent. New England Manufacturing pay grew by almost 16 percent while U.S. Manufacturing pay grew by less than 15 percent. Average annual Manufacturing pay in 2003 for New Hampshire was less than that for New England, but in 2002 that relationship was reversed. By 2005, the state's Manufacturing pay was nearly 5 percent higher than the region's and more than 41 percent higher than the nation's.

Lower wages than Massachusetts make business relocation or expansion in New Hampshire attractive to Bay State firms.



The increases in Manufacturing pay may be good for the individual Manufacturing job holder, but they also may be a symptom of structural changes going on in the economy. Manufacturing employment numbers have been on the decline in New Hampshire, New England, and the United States for some time. This trend is expected to continue, driven by global competition and automation. Because U.S. labor is more expensive, manufacturers are continually looking for ways to increase productivity. More and more our low-wage jobs are being moved to areas where labor is cheaper, often off-shore. This leaves only the high-pay, high-value jobs behind to raise the average pay. Increased automation has a similar affect. Both off-shoring and automation increase productivity and thus reduce costs and bolster profits. With the remaining Manufacturing jobs, high value-added with fewer workers yields higher average pay.

In service-providing industries, the story is different. In those industries, the New Hampshire worker's average annual pay was 85 percent of the average New England worker's, though that was up 2.5 points from 2001. During that period the state gained against the nation, moving from 96 percent to 99 percent of the U.S. annual average pay for service-providing industry workers.

Looking Forward - Preparing for the future New Hampshire economy

Average annual pay was calculated using Quarterly Covered Employment and Wages (QCEW) data²⁰ by dividing total wages paid by employers covered by unemployment compensation insurance by the average number of jobs in covered employment. Changes in average annual pay can be caused by increased wage rates, but they are also influenced by changes in the number of hours worked. Just as overtime adds to an individual's annual pay, it also boosts the average.

Employment and wages in New England, and therefore the region's annual average pay, are greatly impacted by Massachusetts data. Massachusetts represents almost half of New England's covered employment and just over half of its total covered wages. New Hampshire, on the other hand, represents around 9 percent of the region's jobs and only about 8 percent of its wages.

Year	New England		Massachusetts		New Hampshire		MA Share		NH Share	
	Average Employment (thousands)	Total Wages (millions)	Average Employment (thousands)	Total Wages (millions)	Average Employment (thousands)	Total Wages (millions)	Jobs	Wages	Jobs	Wages
2001	5,974.5	\$252,360	2,861.8	\$130,388	531.0	\$19,091	47.9%	51.7%	8.9%	7.6%
2002	5,863.9	\$247,645	2,790.2	\$126,412	521.5	\$19,082	47.6%	51.0%	8.9%	7.7%
2003	5,794.7	\$252,035	2,739.2	\$127,563	520.5	\$19,613	47.3%	50.6%	9.0%	7.8%
2004	5,825.2	\$266,561	2,739.9	\$134,879	529.5	\$20,937	47.0%	50.6%	9.1%	7.9%
2005	5,861.9	\$276,324	2,757.4	\$139,026	535.5	\$21,967	47.0%	50.3%	9.1%	8.0%

The covered wage data and average annual pay in the tables above are in "current" dollars. In real dollars, adjusted for inflation using the Bureau of Labor Statistics' Inflation Calculator,²¹ the five-year New Hampshire private industry pay changes are scaled back somewhat, but nevertheless show real increases – with pay growth for all private industry more than double the U.S. growth of 1.6 percent from 2001 to 2005.

New Hampshire Average Annual Wage Change in Real 2005 Dollars

	2005	2001	Net Change	Percent Change
Private industry	\$41,020	\$39,651	\$1,369	3.5%
Goods-producing	\$49,838	\$48,305	\$1,533	3.2%
Manufacturing	\$69,689	\$63,060	\$6,629	10.5%
Service-providing	\$38,691	\$36,927	\$1,764	4.8%

Note: The 2001 data has been adjusted for inflation to 2005 dollars using the BLS Inflation Calculator

²⁰ U.S. Department of Labor, Bureau of Labor Statistics. "Quarterly Census of Employment and Wages." <www.bls.gov/cew/home.htm>.

²¹ U.S. Department of Labor, Bureau of Labor Statistics. "Inflation Calculator." <data.bls.gov/cgi-bin/cpicalc.pl>.

Appendices

Skills Based Employment Projections Caveat

“Why are some occupations not imported (into the Skills Based Employment Projections model)?”

Occupations may not have been imported for several reasons:

Aggregate Occupations. Occupation codes that do not correspond to the Occupational Employment Statistics (OES) survey’s level of detail are not imported. New Hampshire’s data had three occupations that employed 531 people in this category.

Residual Occupations. Residual, or “All Other” occupations represent an amalgam of related but not distinct occupations. O*NET cannot classify worker requirements for this set. New Hampshire’s data included 39 occupations that employed 35,711 workers in these types of job descriptions.

No O*NET equivalent. As of O*NET version 7.0, almost 50 occupations had not been populated with job requirement information. However, the DOL/ETA (US Department of Labor, Employment and Training Administration) is involved in an ongoing process of population and updating the O*NET database. There were 36 occupations employing 10,263 people in New Hampshire in this group.

State-defined SOC codes. SOC (Standard Occupational Classification) codes established by individual states which deviate from OES SOC will not link to O*NET job requirement data. New Hampshire had 28 occupations which included 16,772 workers in this group.

Zero employment. Occupations with “0” employment will not be imported. New Hampshire had one occupation here.

Skills Based Employment Projections - Skills

	2004 Current Supply	2014 Projected Demand	Percent Rank	Replacement Index
Reading Comprehension	285,808	11,644	100.00	48.96
Active Listening	278,152	11,165	97.14	50.62
Speaking	246,434	10,325	94.29	47.54
Writing	213,456	8,792	91.43	48.13
Critical Thinking	203,011	8,321	88.57	47.51
Active Learning	188,914	7,859	85.71	47.18
Monitoring	168,471	7,064	77.14	46.45
Coordination	162,646	6,802	74.29	45.84
Learning Strategies	162,355	7,186	80.00	45.37
Instructing	162,310	7,248	82.86	43.52
Social Perceptiveness	158,798	6,783	71.43	47.37
Time Management	151,753	6,233	68.57	46.74
Judgment and Decision Making	123,672	5,256	65.71	46.52
Mathematics	112,277	4,739	60.00	47.88
Complex Problem Identification	106,001	4,521	62.86	44.72
Persuasion	96,789	3,996	57.14	44.89
Service Orientation	93,377	4,181	54.29	47.43
Management of Personnel Resources	72,361	2,586	48.57	53.44
Equipment Selection	62,174	2,610	51.43	44.44
Troubleshooting	51,502	2,158	45.71	47.31
Negotiation	44,258	1,688	31.43	52.78
Installation	43,956	1,862	40.00	48.50
Management of Financial Resources	38,684	1,514	28.57	49.41
Systems Evaluation	37,557	1,631	42.86	37.03
Operations Analysis	35,430	1,496	34.29	42.31
Systems Analysis	33,199	1,429	37.14	38.14
Quality control	28,653	1,151	25.71	44.92
Management of Material Resources	28,360	1,127	22.86	50.31
Equipment Maintenance	27,306	1,119	14.29	52.46
Repairing	25,467	999	11.43	54.96
Science	24,538	1,048	20.00	46.56
Technology Design	18,011	828	17.14	34.90
Operation Monitoring	15,177	625	2.86	56.16
Operation and Control	14,737	659	8.57	46.43
Programming	7,915	401	5.71	25.44

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Skills Based Employment Projections - Knowledge

	2004 Current Supply	2014 Projected Demand	Percent Rank	Replacement Index
Customer and Personal Service	240,946	10,538	100.00	54.18
English Language	108,586	4,308	96.97	49.28
Clerical	94,248	3,129	81.82	62.90
Mathematics	82,986	3,112	90.91	51.80
Education and Training	75,742	3,465	93.94	43.12
Sales and Marketing	75,725	3,462	87.88	57.77
Computers and Electronics	60,965	2,241	78.79	51.67
Administration and Management	55,012	2,017	75.76	53.15
Psychology	48,926	2,362	84.85	42.25
Mechanical	47,544	1,787	69.70	60.66
Economics and Accounting	32,535	1,205	66.67	48.46
Design	27,739	1,077	60.61	47.91
Law, Government and Jurisprudence	25,787	937	54.55	51.23
Building and Construction	23,637	846	51.52	52.25
Medicine and Dentistry	23,381	1,266	72.73	36.97
Engineering and Technology	21,923	958	57.58	41.86
Personnel and Human Resources	20,939	816	48.48	51.96
Public Safety and Security	20,600	785	42.42	56.56
Therapy and Counseling	19,620	946	63.64	40.17
Production and Processing	14,326	442	27.27	74.21
Telecommunications	10,824	521	45.45	30.33
Geography	9,443	443	36.36	50.34
Biology	7,369	368	39.39	39.13
Chemistry	6,691	320	33.33	45.63
Physics	4,189	152	24.24	51.32
Food Production	3,994	76	12.12	43.42
Sociology and Anthropology	3,360	158	30.30	40.51
Communications and Media	2,713	117	21.21	46.15
Fine Arts	2,610	101	15.15	51.49
Transportation	2,367	95	18.18	48.42
Philosophy and Theology	1,067	35	3.03	60.00
History and Archeology	592	31	9.09	45.16
Foreign Language	536	26	6.06	42.31

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.

Skills Based Employment Projections - Abilities

	2004 Current Supply	2014 Projected Demand	Percent Rank	Replacement Index
Establishing and maintaining interpersonal relationships	312,666	13,741	100.00	53.60
Getting information needed to do the job	210,738	8,685	97.56	48.66
Communicating with supervisors, peers or subordinates	203,608	8,058	90.24	51.04
Organizing, planning and prioritizing work	200,320	7,929	92.68	48.98
Updating and using job-relevant knowledge	191,593	8,041	95.12	48.39
Handling and moving objects	166,470	6,504	75.61	61.56
Making decisions and solving problems	150,413	6,289	85.37	45.51
Working directly with the public	146,822	7,248	82.93	57.26
Identifying objects, actions, and events	133,336	5,994	87.80	41.74
Processing information	132,511	5,241	78.05	49.80
Communicating with persons outside the organizations	123,661	4,863	73.17	52.11
Monitoring processes, materials or surroundings	123,074	5,386	80.49	43.67
Performing general physical activities	122,591	4,646	65.85	56.63
Resolving conflicts and negotiating with others	103,979	4,097	68.29	49.38
Thinking creatively	81,228	3,371	63.41	44.73
Assisting and caring for others	77,165	3,946	70.73	41.38
Analyzing data or information	75,845	3,090	60.98	45.83
Evaluating information for compliance to standards	71,504	2,924	56.10	50.27
Scheduling work and activities	70,588	2,621	51.22	51.47
Judging the qualities of objects, services or persons	69,792	2,809	58.54	47.81
Documenting/recording information	56,122	2,449	53.66	44.55
Coaching and developing others	54,282	2,141	41.46	50.21
Providing consultation and advice to others	49,585	2,021	48.78	44.98
Coordinating the work and activities of others	46,445	1,874	39.02	48.13
Teaching others	43,600	2,042	43.90	46.87
Interacting with computers	41,534	1,799	46.34	39.30
Guiding, directing and motivating subordinates	40,982	1,576	34.15	53.49
Interpreting the meaning of information for others	35,028	1,467	36.59	39.13
Monitoring and controlling resources	31,293	1,047	26.83	52.44
Selling or influencing others	29,827	1,209	29.27	54.26
Performing administrative activities	27,482	1,031	24.39	52.18
Developing objectives and strategies	25,555	1,072	31.71	41.32
Inspecting equipment, structures or materials	20,493	691	7.32	63.97
Repairing and maintaining mechanical equipment	20,476	811	17.07	57.34
Controlling machines and process	19,113	672	12.20	61.46
Developing and building teams	18,262	725	21.95	47.59
Estimate characteristics of materials, prod, events or info	17,161	643	19.51	45.88
Staffing organizational units	15,952	597	14.63	52.43
Operating vehicles, mechanized devices or equipment	12,748	482	9.76	51.04
Repairing and maintaining electronic equipment	11,571	424	4.88	54.72
Drafting, laying-out, & specify tech devices, parts, or equip	5,828	205	2.44	60.49

Source: Economic and Labor Market Information Bureau of New Hampshire Employment Security, with use of Skills-Based Employment Projections system.