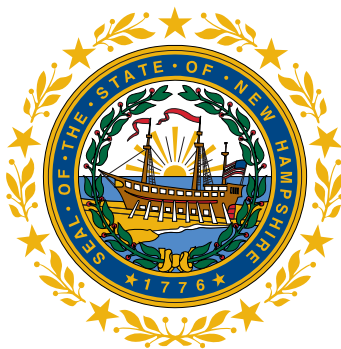


Measuring New Hampshire's Economic Health

A Workforce Perspective



State of New Hampshire

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New Hampshire Snapshot

Population (as of July 1)^a	2012	2007	2002
Total	1,320,718	1,315,828	1,275,056
Male	652,237	649,299	627,621
Female	668,481	666,529	647,435
Median Age	42.0 years	39.8 years	37.9 years
Age 19 and under	314,590	334,516	342,763
Age 20 to 64 years	837,634	815,570	779,716
Age 65 and over	168,494	165,742	152,577

Jobs, Average Annual, Not Seasonally Adjusted^b	2012	2007	2002
Total Nonfarm	633,200	647,600	618,200
Total Private	541,800	554,300	529,900
Goods-Producing	89,000	106,200	113,800
Service-Providing	544,100	541,500	504,400
Construction	22,200	27,400	27,900
Manufacturing	65,900	77,600	85,000
Trade, Transportation, and Utilities	135,700	141,400	138,200
Financial Activities	34,900	38,400	36,600
Professional and Business Services	68,200	65,500	54,300
Education and Health Services	114,600	104,500	91,600
Leisure and Hospitality	64,500	64,000	60,800
Government	91,400	93,300	88,300

Employment, Average Annual, Not Seasonally Adjusted^c	2012	2007	2002
Civilian Labor Force	742,448	740,033	712,180
Employed	701,315	713,782	679,818
Unemployed	41,133	26,251	32,362
Unemployment Rate	5.5%	3.5%	4.5%
Labor Force Participation Rate ^d (population age 16 and over)	69.4%	70.8%	71.6%

^a U.S. Census Bureau, Annual Estimates of the Resident Population for Selected Age Groups by Sex for New Hampshire

^b Current Employment Statistics, Not Seasonally Adjusted Estimates, Economic and Labor Market Information Bureau, New Hampshire Employment Security. Benchmark revision released February 28, 2013. 2012 data are preliminary.

^c Economic and Labor Market Information Bureau, New Hampshire Employment Security

^d U.S. Census Bureau, Current Population Survey unpublished data (12-month average)

New Hampshire Snapshot

Earnings and Wages	2012	2007	2002
Per Capita Personal Income ^e	\$47,058	\$42,984	\$35,173
Average Weekly Wage^f			
Total, private plus government	\$928	\$843	\$696
Total private	\$937	\$852	\$704
Goods-producing industries	\$1,150	\$1,054	\$868
Service-providing industries	\$893	\$803	\$657
Government, Total	\$868	\$787	\$645
Housing	2012	2007	2002
Median Purchase Price ^g	\$205,000	\$252,500	\$189,900
Median Gross Rent ^h	\$1,005	\$946	\$810
Rental Vacancy Rates	3.2%	4.2%	1.1%
Building Permits Issuedⁱ			
Total permits	2,296	4,561	8,708
1 unit per structure	1,682	3,772	6,754
2-4 units per structure	133	180	455
5 or more units per structure	481	609	1,499

^e U.S. Bureau of Economic Analysis. Data not adjusted for inflation. Preliminary 2012 data release March 27, 2013.

^f Economic and Labor Market Information Bureau, New Hampshire Employment Security. Average weekly wages of workers covered by unemployment insurance, not adjusted for inflation. 2012 data are preliminary.

^g NH Dept. of Revenue, PA-34 Dataset, Compiled by Real Data Corp. Filtered and analyzed by New Hampshire Housing. Not adjusted for inflation. Data includes only homes for primary occupancy, data excludes land, multifamily homes, seasonal or vacation property, and manufactured homes.

^h New Hampshire Housing Finance Authority. Annual Residential Rental Cost Survey.

ⁱ U.S. Census Bureau, New Privately Owned Housing Units Authorized by Building Permits in Permit-Issuing Places in the State of New Hampshire

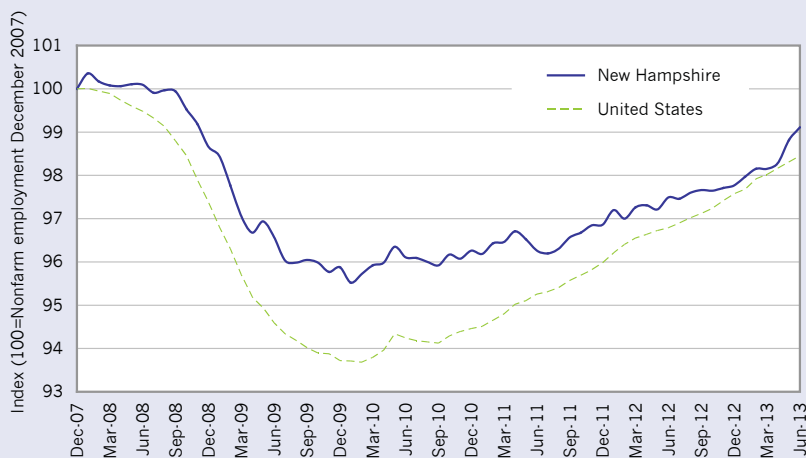
Impact of the Great Recession

Nonfarm Jobs

The recent recession impacted the nation across every economic measure, and recovery has been slow. While New Hampshire was certainly impacted, the state did fare better than the nation. The number of nonfarm jobs, levels of employment and unemployment, and demographics and population change are measures that illustrate the differences between New Hampshire and the nation as a whole.

The trend in nonfarm jobs shows New Hampshire fared better than the nation. Comparing the trend in the total number of nonfarm jobs in New Hampshire to that of the nation since the beginning of the Great Recession in December 2007, clearly shows that New Hampshire was not as severely affected as the nation. However, that does not mean New Hampshire faces no challenges as the state and nation move toward recovery.

Chart 1: Nonfarm employment, seasonally adjusted New Hampshire vs United States (indexed - December 2007 = 100)



Source: U.S. Bureau of Labor Statistics

Duration of the employment decline was shorter in New Hampshire than the nation as a whole. National nonfarm employment began a steady decline in February 2008; nonfarm employment in New Hampshire did not fall below the December 2007 level until September 2008, seven months later than the nation. Nonfarm employment in New Hampshire fell in 19 of the months between January 2008 and February 2010, instead of the 25 straight months of decline for national nonfarm employment.

Depth of the employment decline was less in New Hampshire than the nation. From December 2007 to February 2010, New Hampshire lost 4.3 percent of total nonfarm jobs; the nation lost 6.3 percent.

Employment and Unemployment

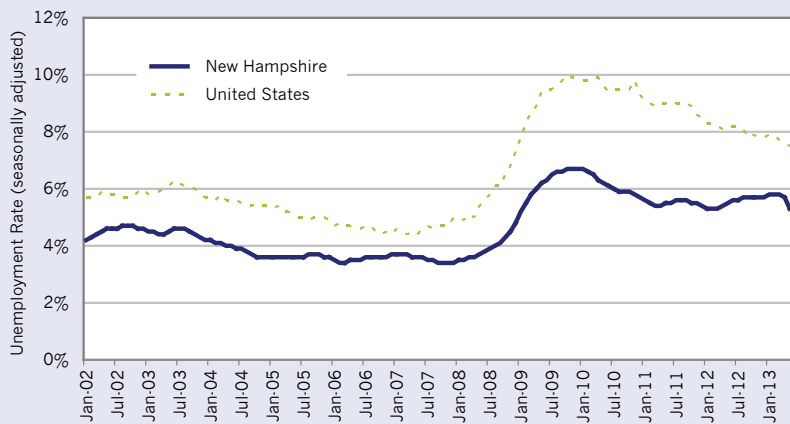
New Hampshire's unemployment rate remains relatively low. The state's annual 2012 unemployment rate of 5.5 percent ranked eighth lowest among all states and the District of Columbia.

New Hampshire has one of the lowest unemployment rates in New England. The state's annual 2012 unemployment rate of 5.5 percent ranked second only to Vermont, which had rate of 5.0 percent. The New England annual 2012 unemployment rate was 7.2 percent. New Hampshire's seasonally adjusted unemployment rate was the lowest among the six New England states for

nearly seven consecutive years (2005 through 2011), and has been lower than the New England unemployment rate since 1976, when the current statistical series began.

Labor force participation in New Hampshire remains high. New Hampshire's labor force participation rate was 69.6 percent in 2012, compared to 63.7 percent for the United States. This means that about 70 of every 100 persons in New Hampshire (civilian, non-institutionalized) aged 16 years and over were either working or actively looking for work.

Chart 2: The New Hampshire unemployment rate has consistently been lower than the United States unemployment rate



Source: U.S. Bureau of Labor Statistics and Economic and Labor Market Information Bureau

Population

Population growth in New Hampshire is substantially slower than in the nation as a whole. Population changes may affect New Hampshire job growth and how job needs are met. From 2008 to 2012, the nation's population grew by 3.2 percent, compared to 0.4 percent for New Hampshire. This slower growth was primarily caused by domestic out-migration. A low rate of population growth will affect the rate of job growth in the future, as well as the distribution of jobs by industry and occupation.

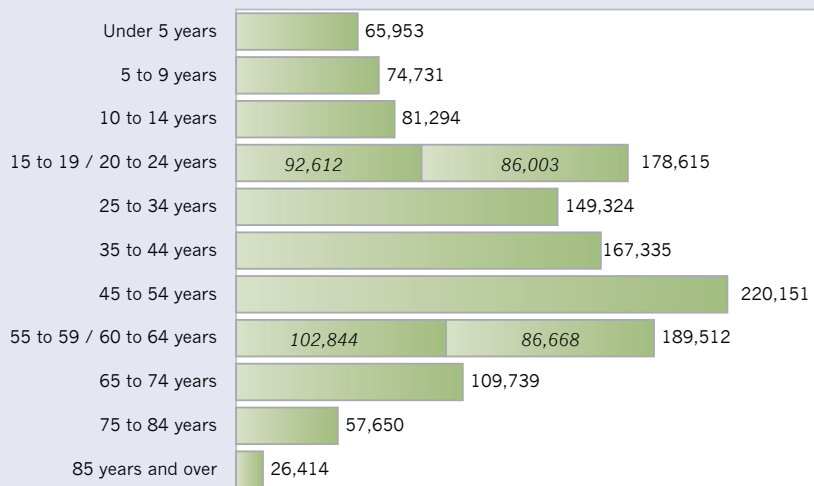
New Hampshire's population is older than the people in nearly all other states. According to the U.S. Census Bureau's Annual Estimates of the Resident Population for Selected Age Groups, the median age of New Hampshire's population in 2012 was 42.0 years, the third-highest among the states. Only Maine (43.5 years) and Vermont (42.3 years) are higher. New England is older than much of the nation —

five of the six New England states are ranked among the ten states with the highest median age. The median age in Massachusetts was 39.3 years, ranking eleventh-highest, tied with New Jersey.

The largest share of New Hampshire's population is still of working age (25 to 64 years). Among New Hampshire residents age 15 and over in 2012, the largest 10-year age cohort is the 55 to 64 years age group. This portion of the populace represents the middle of the baby boom generation, which is usually defined as those born between 1946 and 1964. There are several unknowns related to the baby boom generation, the first of which has recently reached the age of retirement. At what age will they retire? Will they completely leave the labor force or just leave their current jobs? Will companies replace these workers or consolidate positions, finding alternative solutions through more intense use of technology? These are open questions; yet examining how large a component these aging baby boomers are of the current workforce, and in which industries they are employed, will indicate where additional and replacement skilled labor will potentially be needed.

New Hampshire's population has a high level of educational attainment. In 2012, New Hampshire's population held a higher level of educational attainment than the United States as a whole. Among New Hampshire residents 18 to 24 years of age, 60.5 percent had some college, an associate's degree, or a bachelor's degree or higher, compared to 53.6 percent for the nation. Among New Hampshire residents 25 years of age and over, 93.0 percent were high school graduates or higher; 38.0 percent held a bachelor's degree or higher.

Chart 3: New Hampshire Population by Age, 2012



Source: U.S. Census Bureau, Annual Estimates of the Resident Population for Selected Age Groups by Sex for New Hampshire, 2012

This compared with 87.6 percent and 30.9 percent for the United States, respectively.¹ Continued concentration on education and retraining, and preparation for the workplace will help ensure a qualified workforce and lower unemployment rates.

Why are these measures important?

Population, age, labor force participation, and job growth are interrelated. New Hampshire is facing slow population

growth (compared to previous decades), attendant slower job growth, and an aging population. This combination of an aging workforce, slow population growth, and slow job growth will lead to more job openings from replacements than new job growth. Even though the largest portion of New Hampshire's population is still of working age, without younger people entering the labor force pipeline, the state potentially faces a future labor shortage.

¹. U.S. Bureau of the Census, unpublished data from the Current Population Survey. The Current Population Survey, a monthly survey of households, is conducted by the Bureau of the Census for the Bureau of Labor Statistics. The survey provides statistics on the employment and labor force status of the civilian noninstitutional population 16 years and older.

Challenges for the Workforce System

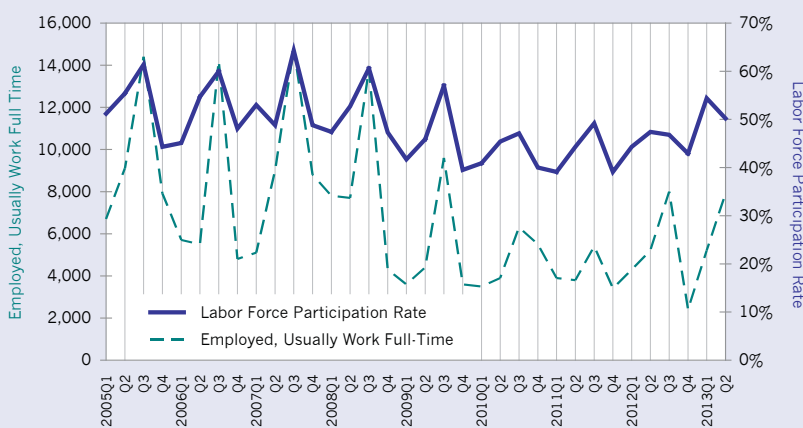
Diminished Employment Opportunities for Youth²

According to unpublished data from the Current Population Survey, New Hampshire youth ages 16 to 19 experienced major shifts in employment patterns over the past four years. First, the number of youth who usually work full-time has dropped. Second, the third quarter spike in the number of youth working full time (which essentially doubles the number working full time during other parts of the year) virtually disappeared in 2010 and 2011. The third quarter employment spike re-appeared in 2012, but rose only to slightly over half of pre-recession levels. Throughout this period, the youth labor force participation rate dropped by about ten percentage points, but through the first two quarters of 2013, the rate has risen slightly above 2007 levels.

Yet, because of the current labor market, with limited openings and intense competition between workers of all ages, the traditional seasonal job market for youth has dissipated. Though youth are participating in the labor force, the number who are working full-time is not rising as fast. Persons with little or no experience may still have a difficult time getting “a foot in the door” despite the expectation that a little under half of the projected job openings over the next year or so will require short-term on-the-job training, but no postsecondary education. Out of the 22,536 projected job openings in New Hampshire from fourth quarter 2012 to fourth quarter 2014, 10,357 openings are for jobs that typically require short-term (one month or less) on-the-job training, a high school diploma or less education, and no previous work experience.³ Training and increased opportunities for internships are pivotal in the quest for placement of youth in employment and reemployment of the long-term unemployed.

On a positive note, recent State initiatives to promote education have reduced the dropout rate. According to the New Hampshire State Department of Education, the cohort rate (defined by the New England Secondary School Consortium in parallel with national definitions) was 3.08 percent for the 2011-2012 school year, down from 3.30 percent for 2010-2011. These initiatives, in combination with lack of employment opportunities in New Hampshire's labor market

Chart 4: Youth Age 16-19, Both Sexes



Source: U.S. Census Bureau, unpublished data from the Current Population Survey

2. U.S. Bureau of the Census, unpublished data from the Current Population Survey
 3. New Hampshire Short-Term Occupational Projections, 2012 Q4 to 2014 Q4 (June 2013), Economic and Labor Market Information Bureau, New Hampshire Employment Security.

for youth, have encouraged many young people to stay in school. Future employment opportunities will continue to be linked to education and training beyond high school.

Data from the Quarterly Workforce Indicators (QWI)⁴ present evidence that the workforce in New Hampshire is aging, a measure that is especially noticeable in the Manufacturing

sector. As the current supply of skilled Manufacturing workers retires, it creates a potentially high demand for a new supply of trained, skilled workers. This emphasizes the need to focus on development of a pipeline to bring young workers into the skilled workforce, using avenues such as apprenticeship programs and the continued promotion of skilled worker training programs in the community college system.

Long-term unemployment⁵

While the New Hampshire unemployment rate has remained lower than the national unemployment rate, the number of unemployed persons and the duration of unemployment have yet to drop to pre-recession levels. Furthermore, a large portion of those persons who were unemployed for more than 52 weeks in 2010 and 2011 were in the 55 to 64 years age range. This presents a particular challenge for the workforce system.

A comparison of unemployment duration for 2007 to 2013 (through June) illustrates the progress, or lack thereof, in length of unemployment for

New Hampshire residents. The only duration measure that has dropped below 2007 levels is the number of persons unemployed for less than five weeks. The number of persons unemployed for five to 14 weeks in the first half of 2013 was a little under a third higher than 2007. The number of persons unemployed 15 to 26 weeks was still nearly double that of 2007, while those unemployed 27 to 51 weeks is two-and-a-quarter times higher than 2007. The longest duration measure, 52 weeks or over, was more than five times higher in the first half of 2013 than it was in 2007.

Number of Unemployed in New Hampshire by Duration
2007 through 2012 Annual Averages vs. Most Recent 12-Month Average

Length Unemployed	2007	2008	2009	2010	2011	2012	July 2012 - June 2013
Less Than 5 Weeks	11,100	9,900	10,300	9,200	10,100	9,900	10,000
5 to 14 Weeks	9,200	9,300	13,600	10,300	10,900	10,000	11,200
15 Weeks to 6 Months	3,500	4,000	8,300	7,100	6,300	7,400	6,800
6 Months to 1 Year	1,700	3,000	7,600	6,100	4,100	4,700	4,000
1 Year or More	1,400	2,000	7,700	11,800	8,800	9,500	9,100
Total Unemployed	26,900	28,200	47,500	44,500	40,200	41,500	41,200

Source: Bureau of Labor Statistics, Current Population Survey

4. Local Employment Dynamics program, U. S. Census Bureau

5. U.S. Bureau of the Census, unpublished data from the Current Population Survey

**Chart 5: Duration of Unemployment in New Hampshire, January 2007 - June 2013
(12-month moving averages)**



Note: For percentage change, 2007 is calculated as a monthly average of January 2007 through December 2007 data. 2013 is calculated as a monthly average of January 2013 through June 2013 data.

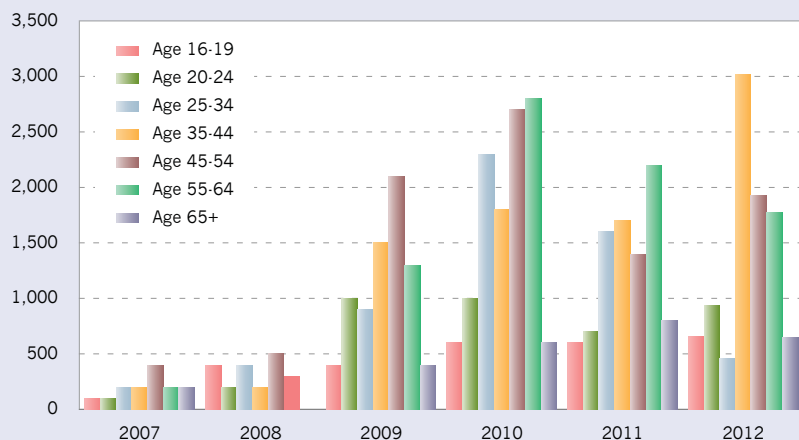
Source: U.S. Bureau of the Census, unpublished data from the Current Population Survey

In 2007, the numbers of persons with an unemployment duration of less than five weeks or five to 14 weeks together represented about three-fourths of all unemployed persons. As of June 2013, persons in these two groups represented over half of all unemployed persons. The number of persons unemployed for 15 to 26 weeks or 27 to 51 weeks in 2013 is also getting closer to the 2007 share of unemployed persons. The share of those unemployed for 52 weeks or more, however, still presents an alarming picture. The share of persons unemployed for 52 weeks or more in 2007 was five percent of all unemployed persons; by the first half of 2013, that share was nearly 18 percent. This share

peaked in 2010, rising to over 25 percent of unemployed persons in the ranks of the very long-term unemployed.

Even as the economy continues to recover from the recession, duration of unemployment remains a problem, particularly for the older worker population. Unemployment by duration data for 2011 from the Current Population Survey show that workers ages 55 to 64 accounted for one of four unemployed residents who were out of work for 52 weeks or more. Though the number of very long-term unemployed in this age group has begun to decline, the 2012 estimate is still six times higher than 2008 levels.

Chart 6: Very Long-term Unemployment by Age
(Unemployed 52 Weeks or More)



Source: U.S. Census Bureau, unpublished data from the Current Population Survey (12-month averages)

In order to increase older workers' attractiveness to employers and to ensure that their workforce skills maintain currency, a focus on continuing education courses is strongly encouraged. This type of training fits well with WIA-eligible programs, such as IT-related certification programs, energy auditor programs, and similar programs. Even workplace skills assessment and training programs, such as WorkReadyNH⁶, are advantageous to older workers. Through WorkReadyNH, the older worker can earn a nationally-recognized credential, thereby showing their ability to both stay up-to-date with current workforce skills and learn new skills.

⁶. *WorkReadyNH* is part of a three-pronged policy approach (Governor's Three-Part Initiative called New Hampshire Working) to mitigate the high level of unemployment in New Hampshire. The other two parts are Stay at Work (also known as New Hampshire WorkShare) and Return to Work. The WorkReadyNH program is provided through the Community College System of New Hampshire (www.ccsnh.edu/workreadynh/index.html).

Geographic distribution of unemployment

Unemployment rates by county reveal that the highest unemployment rates have consistently been in the state's northernmost county, Coös. Seasonal industries and the long-term loss of paper manufacturing have contributed to this. Grafton County typically has the lowest unemployment rate, in part due to its industrial base with education and health care, both industries that have steadily grown over the past ten years in New Hampshire.

Rural areas of New Hampshire typically face a higher level of unemployment, especially in the tourism off-season periods. A large part of New Hampshire's economy is engaged in tourism-related industries, and these industries provide seasonal employment opportunities. However, rural communities need to

work towards balancing local economies with a more diversified industry mix to help mitigate the effects of seasonal industry employment.

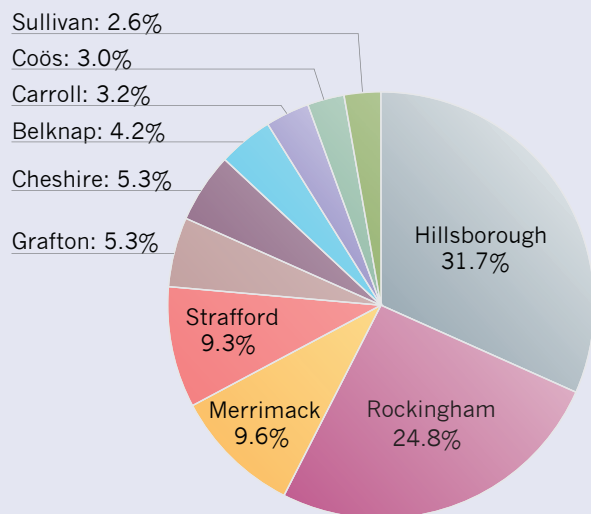
The State of New Hampshire has chosen to give particular attention to economic development in the North Country (e.g., Coös County Job Creation Tax Credit⁷). With the opening of a federal prison, the construction of a biomass plant in Berlin, and the reopening of the paper mill in Gorham, the area's industry diversification is becoming more secure. Training programs at the White Mountains Community College in Berlin and job counseling at the local NHWorks one-stop office help promote these emergent job opportunities. Due to a prolonged lack of employment opportunities in the region, retention

Unemployment Rates by County, 2000-2012

	Belknap	Carroll	Cheshire	Coös	Grafton	Hillsborough	Merrimack	Rockingham	Strafford	Sullivan
2000	2.5%	2.7%	2.7%	3.7%	2.4%	2.6%	2.4%	3.0%	2.7%	2.5%
2001	3.0%	3.1%	3.0%	5.3%	2.7%	3.5%	2.9%	4.0%	3.3%	2.7%
2002	3.9%	3.6%	3.6%	6.8%	3.0%	4.9%	3.5%	5.5%	4.4%	3.2%
2003	4.0%	3.7%	3.7%	5.4%	3.1%	4.7%	3.7%	5.4%	4.1%	3.6%
2004	3.6%	3.3%	3.4%	4.6%	2.8%	4.0%	3.2%	4.7%	3.5%	3.3%
2005	3.4%	3.5%	3.2%	4.2%	2.9%	3.7%	3.2%	4.2%	3.5%	3.0%
2006	3.4%	3.3%	3.3%	4.3%	2.9%	3.7%	3.2%	3.9%	3.3%	3.0%
2007	3.6%	3.5%	3.6%	4.6%	3.0%	3.6%	3.3%	3.8%	3.3%	3.0%
2008	4.1%	3.6%	3.7%	5.2%	3.2%	3.9%	3.7%	4.3%	3.7%	3.4%
2009	6.6%	5.6%	5.7%	7.9%	5.1%	6.5%	5.6%	6.6%	6.2%	5.7%
2010	6.7%	6.0%	6.0%	8.0%	5.1%	6.3%	5.6%	6.3%	5.9%	5.8%
2011	5.6%	5.4%	5.3%	7.6%	4.5%	5.5%	4.9%	5.7%	5.3%	4.9%
2012	5.4%	5.5%	5.3%	7.7%	4.4%	5.7%	4.9%	6.0%	5.5%	4.8%

7. Coös County Job Creation Tax Credit (House Bill 1644 passed in 2008). The credit is granted to businesses for each new, full time, year-round employee hired in Coos County for which actual wages paid, including the amount paid by the employer for medical and dental benefits, equals or exceeds 150 percent of the current state minimum wage. Accessed on November 13, 2012 at www.revenue.nh.gov/faq/dra_3000.htm

Chart 7: Share of Unemployed Persons in New Hampshire by County, 2012



Source: Local Area Unemployment Statistics, Economic and Labor Market Information Bureau

or attraction of younger workers has been difficult, and the lack of a younger workforce may become an issue. The 2012 median age for Coös and Carroll Counties is 47.6 years and 49.7 years, respectively, well above both the state at 42.0 years and the nation at 37.4 years.⁸ The rural areas of the state are likely experiencing a generational bubble, which could eventually lead to a skills gap when older workers decide to retire. Economic development and workforce training policies currently being pursued are intended to mitigate this possibility.

Over three-quarters of New Hampshire's unemployment in 2012 was concentrated in the state's four southeastern counties, corresponding to the state's most populous areas.

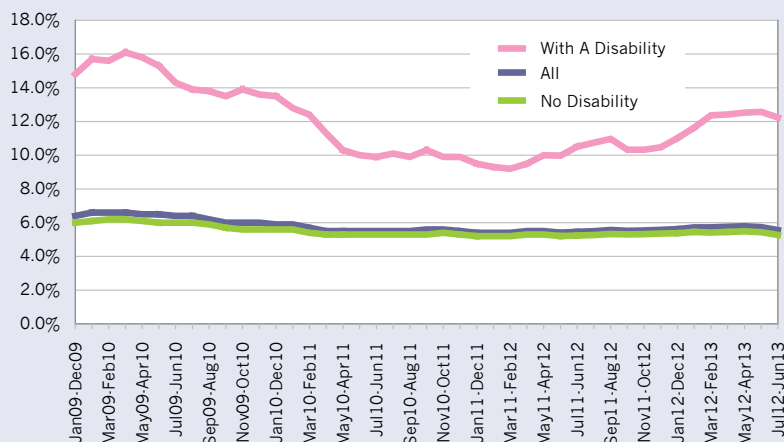
8. U.S. Census Bureau, Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2012. Release Date: June 13, 2013

Disabled Population⁹

The estimated number of persons age 16 and over with a disability in the labor force dropped a little from more than 32,800 in 2010 to about 32,000 in 2012. The number of unemployed persons with a disability dropped from about 4,300 to around 3,500 over the same time frame. The unemployment rate for persons with a disability decreased from 13.0 percent in 2010 to 11.0 percent in 2012. In comparison, the unemployment rate for persons with no disability was

about the same, going from 5.5 percent in 2010 to 5.4 percent in 2012. The improvement in the unemployment rate among persons with a disability is mainly due to persons exiting the labor market. The labor force participation rate for individuals with a disability dropped from 28.7 percent in 2010 to 26.8 percent in 2012. As the economy more fully recovers, persons with disabilities not currently in the labor force will have more opportunities to join or rejoin the labor force.¹⁰

Chart 8: NH Unemployment Rate, 12-Month Moving Average



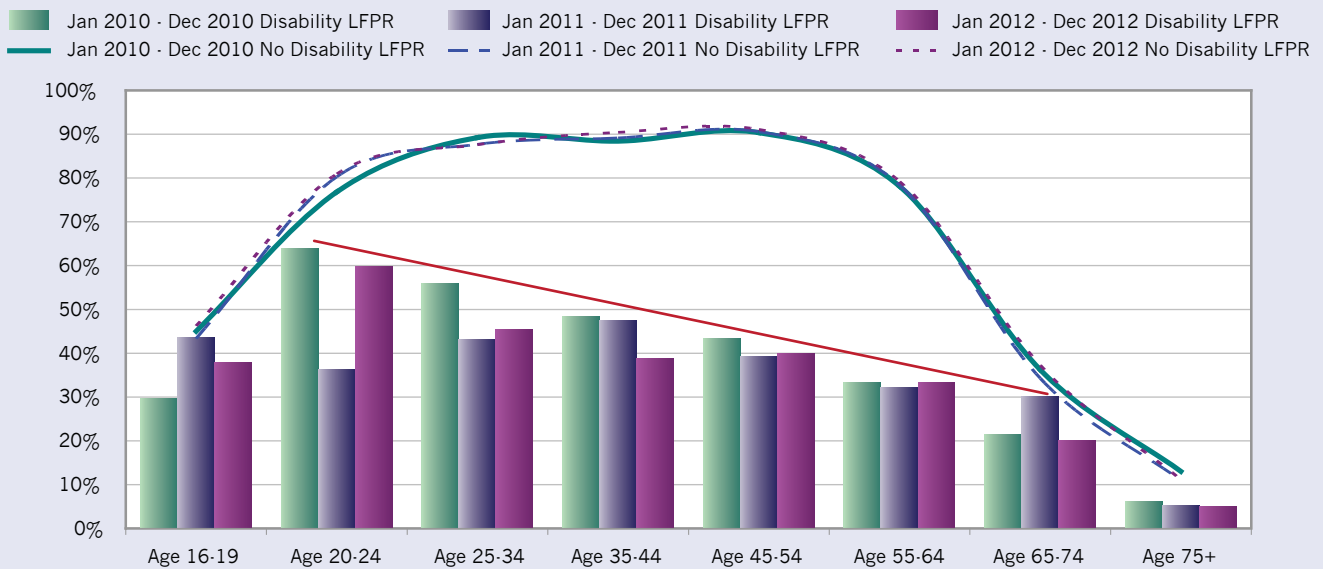
Source: U.S. Census Bureau, unpublished Current Population Survey data (12-month moving averages)

Education Matters. Both disabled and non-disabled persons with a higher level of education are more likely to participate in the labor force, and usually have a lower unemployment rate. Over the 12-month period from July 2012 through June 2013, about a third of disabled persons with a bachelor's degree or higher participated in the labor force. The unemployment rate for this group was 3.3 percent, which is comparable to the 3.1 percent unemployment rate for non-disabled persons with the same educational attainment. On the other hand, disabled persons with a high school diploma or less education had an unemployment rate of 17.9 percent, more than double the 8.2 percent unemployment rate for non-disabled persons with the same

9. U.S. Bureau of the Census, unpublished data from the Current Population Survey. Based on a 12-month moving average for January through December each year.

10. Though more employment opportunities may be available to those receiving Social Security Disability Insurance (SSDI), these workers are less likely to re-enter the labor market. According to a RAND Labor and Population Working Paper entitled Does Disability Insurance Receipt Discourage Work, "Very few beneficiaries exit the program for a reason other than death (35% in 2009) or automatic conversion to retired worker benefits at the Full Retirement Age (54%). In 2009, only 8% of worker beneficiaries' benefits were terminated because they no longer qualified for benefits; of those, 39% failed a medical review (a Continuing Disability Review, or CDR) whereas 61% were found to be earning more than the SGA [substantial gainful activity] threshold (Social Security Administration, 2010, Table 50)." (Nicole Maestas, Kathleen J. Mullen and Alexander Strand, June 2012, p. 9)

Chart 9: Labor Force Participation Rates



Source: U.S. Census Bureau, unpublished Current Population Survey data (12-month moving averages)

level of education. Less than a quarter of disabled persons with a high school diploma or less education participated in the labor force.¹¹

The largest discrepancy between persons with a disability versus persons with no disability and their participation in the labor force is in the prime working year age groups (ages 25 to 64). As those with a disability age, their labor force

participation exhibits a downward trend. Labor force participation for those with a disability generally peaks in the 20 to 24 years age group, then declines in each following age group. This is in distinct contrast to those with no disability, whose labor force participation also peaks with the 20 to 24 years age group, then levels off until nearing retirement age in the 55 to 64 years age group, when it begins to decline.

¹¹ U.S. Bureau of the Census, unpublished data from the Current Population Survey. Based on a 12-month moving average for July 2012 through June 2013.

Other targeted demographic groups – Race and ethnicity

According to a brief from the U.S. Census Bureau, the “minority” population in New Hampshire rose by 67.5 percent over the decade from 2000 to 2010, the second largest percentage change among all states. This over-the-decade change was based on a very low minority population in the state in 2000. Even with this percentage increase, minorities represented only 7.7 percent of New Hampshire's population in 2010, accounting for 101,420 persons. Only Vermont, Maine and West Virginia had lower percentages of minority population in the 2010 Census.¹²

The primarily *White, not Hispanic* demographic composition of New Hampshire's population is similarly representative of the civilian population labor force. According to the 2007-2011 American Community Survey, 5-year estimates, *Minorities, One Race* in New Hampshire accounted for 4.0 percent of the civilian labor force and *Hispanic/Latino, Any Race* accounted for

2.2 percent of the civilian labor force.¹³ Combined, there were about 4,200 unemployed persons in New Hampshire identifying themselves as *Minorities, One Race* and/or *Hispanic/Latino, Any Race*. The unemployment rate for *Minorities, One Race* of 9.1 percent was higher than the statewide rate of 6.3 percent for the period 2007-2011. But *Minorities, One Race* also recorded a civilian labor force participation rate (LFPR) that was significantly higher than the overall participation rate for the state. The LFPR for *Minorities, One Race* was 72.0 percent compared to 69.9 percent overall.

Hispanics/Latino, Any Race have a much higher unemployment rate at 12.6 percent, and a LFPR slightly below that of the state overall. Two-thirds of unemployed persons who are *Hispanic/Latino, Any Race* reside in Hillsborough County, correlating with an equally high share of Hispanic population in this county.

New Hampshire Employment Status of the Civilian Population by Gender and Race

2007-2011 American Community Survey, 5-Year — US Census Bureau

	Civilian Population, 16 Years+	Civilian Labor Force	Employed	Unemployed	Unemployment Rate	Civilian Labor Force Participation Rate
Total	1,061,716	741,734	695,066	46,668	6.3%	69.9%
Male	518,667	388,049	361,965	26,084	6.7%	74.8%
Female	543,049	353,685	333,101	20,584	5.8%	65.1%
Race						
One Race	1,051,020	734,483	688,516	45,967	6.3%	69.9%
White	1,010,629	705,414	662,097	43,317	6.1%	69.8%
Minorities	40,391	29,069	26,419	2,650	9.1%	72.0%
Two or More Races	10,696	7,251	6,550	701	9.7%	67.8%
Ethnicity						
Hispanic/Latino, Any Race	24,165	16,807	14,694	2,113	12.6%	69.6%
White only, not Hispanic	993,736	693,780	652,021	41,759	6.0%	69.8%

¹². Overview of Race and Hispanic Origin: 2010. Table 11. Non-Hispanic White Alone Population and the Minority Population for the United States, Regions, States and for Puerto Rico: 2000 and 2010. Issued March 2011. www.census.gov/prod/cen2010/briefs/c2010br-02.pdf.

¹³. Population Statistics, Census 2010 and the American Community Survey (ACS) 2006-2010. Table 4.

The high LFPR for *Minorities, One Race* suggests that this population migrated to New Hampshire for job opportunities. Among the state’s minority population, 9.2 percent are new residents, meaning they lived in another state or abroad one year ago; 3.4 percent of the state’s Hispanic or Latino population are new residents. Among all residents, 3.6 percent lived in another state or abroad one year ago. Minority residents are also younger, thus they are more likely to be participants in the workforce. Among the state’s *Black/African American* residents, the median age is 27.9 years; for *Asian* residents, it is 32.3 years; and for residents of *some other*

race, it is 25.0 years. *Hispanic/Latino* residents have a median age of 24.3 years. In comparison, the median age of *White* residents is 41.6 years.¹⁴

According to data extracted from the NHWorks Job Match System, which is populated by information on UI claimants and other registered job seekers, the profiles of participations and referrals generally match very well with New Hampshire demographics. Not only does participation approximate the population, total referrals approximate participations, an indication that the workforce system is serving all populations in the state.

EEO Report – Wagner-Peyser Program - Ethnicity and Race

Date Range Between 01/01/2012 and 12/31/2012

		Total Participations	% of Total	Total Referrals	% of Total
Total		80,508	100.0%	23,102	100.0%
Hispanic or Latino	M	1,728	2.2%	366	1.6%
	F	1,250	1.6%	236	1.0%
White	M	40,596	50.4%	11,348	49.1%
	F	30,979	38.5%	9,512	41.2%
African American/Black	M	1,061	1.3%	286	1.2%
	F	545	0.7%	129	0.6%
American Indian/Alaskan Native	M	697	0.9%	199	0.9%
	F	482	0.6%	154	0.7%
Asian	M	628	0.8%	123	0.5%
	F	597	0.7%	143	0.6%
Hawaiian/Other Pacific Islander	M	94	0.1%	18	0.1%
	F	58	0.1%	20	0.1%
More than One Race	M	530	0.7%	150	0.7%
	F	395	0.5%	116	0.5%

Source: NHWorks Job Match System, Wagner-Peyser EEO report by Race and Ethnicity.

¹⁴ U.S. Census Bureau, American Community Survey (ACS) 2007-2011 5-Year Estimates, Geographical Mobility in the Past Year (Population 1 year and Over) for Current Residence in the United States. Shares for New Hampshire were calculated.

Labor Underutilization

“What is the REAL unemployment rate?” This has been a commonly heard question, both during and in the aftermath of the Great Recession. Yet, like many statistics, the *accuracy* of the measure is not the issue, but rather the *definition* of what is being measured. To help answer this question, and provide a wider picture of the labor force, the Bureau of Labor Statistics compiles data from the Current Population Survey to create differing measures of labor underutilization.

Monthly unemployment rates for state, the nation, and many sub-state areas are determined simply by dividing the estimated number of unemployed persons by the total civilian labor force. The number of persons in the labor force is the total of employed persons plus unemployed persons. Unemployed persons are defined as those who, during the week including the 12th day of each month, are not working, are actively seeking employment or are waiting to either be recalled from a layoff or waiting to start new employment.

But what about those who work part-time but would like to work full-time? Or someone who is not working, would like to work, but has not been able to find a job for so long they have given up looking? Or someone who has a temporary health issue or must care for a family member, and cannot look for work at the present time? Many of these persons are considered *underutilized labor*, as they do not neatly fit into the definitions of employed or unemployed, yet have some degree of attachment to the labor force. Labor underutilization, using labor resources below their potential, is measured for segments of the labor force other than the parts historically used for the unemployment rate.

There are six alternative measures of labor underutilization, identified as U-1 through U-6.

U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force

Counts only the long-term unemployed and calculates their share of the civilian labor force, so this measure will be lower than the calculation for the official unemployment rate. These individuals have been actively searching for work, but remain unemployed.

U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force

Measures only those persons who lost their jobs through layoff or other dismissal, and those who had been working a temporary job that ended, all as a share of the civilian labor force. This measure will be lower than the official unemployment rate, since it does not include persons who left jobs voluntarily but are still looking for a new job, nor does it include new entrants into the workforce.

U-3 Total unemployed (willing and able to work, and actively looking for a job), as a percent of the civilian labor force

This is the traditional (official) unemployment rate measure. It measures total unemployment (those not working but willing and able to work, and actively seeking employment over the prior four weeks) as a percentage of the total civilian labor force. The labor force is the total of unemployment (as defined above) plus employment.

U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers

This measure will be at least equal to (and likely greater than) the official unemployment rate, since it includes discouraged workers in the total number of underutilized workers. Discouraged workers belong to a subset of marginally attached workers, and have given a job-market-related reason for not currently looking for a job. This measure adds discouraged workers to the civilian labor force to create a larger base workforce.

U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus marginally attached workers

Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. This measure includes both discouraged workers and other marginally attached workers. Marginally attached or "conditionally interested" individuals are available for work,

Alternative Measures of Labor Underutilization - New Hampshire vs. United States

Alternative Measure	Latest Calendar Year Annual Average		Latest 4-Quarter Average	
	2012		2012 Q3 - 2013 Q2	
	New Hampshire	United States	New Hampshire	United States
U-1: persons unemployed 15 weeks or longer, as a percent of the civilian labor force	2.9%	4.5%	2.7%	4.2%
U-2: job losers and persons who completed temporary jobs, as a percent of the civilian labor force	3.3%	4.4%	3.1%	4.2%
U-3: total unemployed, as a percent of the civilian labor force <i>(this is the definition used for the official unemployment rate)*</i>	5.6%	8.1%	5.6%	7.8%
U-4: total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers	6.0%	8.6%	5.8%	8.3%
U-5: total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers	6.7%	9.5%	6.6%	9.2%
U-6: total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers	11.2%	14.7%	11.1%	14.3%

* Due to small state sample sizes, monthly state Current Population Survey (CPS) data do not meet Bureau of Labor Statistics (BLS) publication standards, and moving average estimates of alternative measures for states had not been tabulated until recently. These data were developed by BLS from quarterly tabulations in which the components of each measure are rounded to the nearest hundred. As a result, the newly tabulated estimates contain slightly more rounding error than that found in typical CPS annual average tabulations (in which rates are based on unrounded data). Note that the unemployment rates (U-3) shown in the table are derived directly from the CPS. As a result, these U-3 measures may differ from the official state unemployment rates for the latest 4-quarter average period. The latter are monthly estimates developed from models used by the Local Area Unemployment Statistics program that incorporate CPS estimates, as well as input data from other sources.

but are not participating in the labor force for reasons other than discouragement, such as childcare or family issues, illness, transportation problems, or being in school or other training.

U-6 Total unemployed, plus all marginally attached workers, plus total employed part-time for economic reasons, as a percent of the civilian labor force plus marginally attached workers

This measure uses the same workforce base as U-5, but adds the number of persons employed part-time for economic reasons to the number of persons either unemployed or marginally attached to the labor force. Persons employed part-time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule.

Why is this significant to the workforce system? These data provide a perspective on those who potentially need the services of the workforce system — in particular, discouraged workers and those working part-time for economic reasons. These workers may not have a strong attachment to the labor force, may not be able to find a job offering adequate hours of work, or are so discouraged they have given up trying. It is these workers that most need the assistance of the workforce system to either become labor force participants or to gain the full-time work they desire.

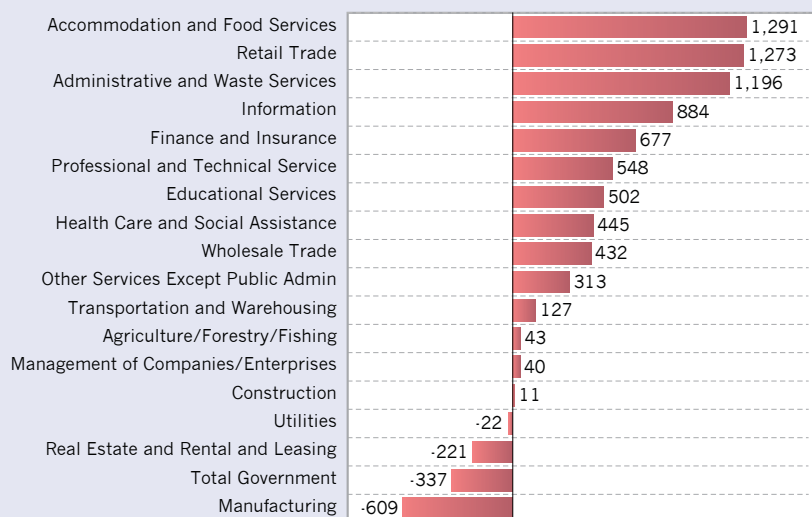
New Hampshire's Business - Industry and Occupation

Covered Employment by Industry

Between 2011 and 2012, private sector covered employment in New Hampshire grew by nearly 7,000 jobs, even though gains were still subdued by job losses in *Manufacturing*. Gains in total covered employment (private business plus government) in New Hampshire were just over 6,600 from 2011 to 2012.

Job gains were led by the *Accommodation and food services* (+1,291), *Retail trade* (+1,273), and *Administrative and waste services* (+1,196) sectors. *Manufacturing* lost jobs (-609), erasing a large portion of the gain made between 2010 and 2011 (+806), as did the *Real Estate and rental and leasing* (-221) and *Utilities* (-22) sectors. Government continued to shed jobs (-337), though only about one-fifth the number dropped between 2010 and 2011 (-1,647). The *Mining and Arts, entertainment, and recreation* sectors were essentially unchanged between 2011 and 2012.

Chart 10: Change in Average Covered Employment for New Hampshire, 2011-2012



Source: Quarterly Census of Employment and Wages, Economic and Labor Market Information Bureau

Determining New Hampshire's Competitive Advantage — Location Quotients

Location Quotients (LQ) are ratios that allow an area's distribution of employment by industry to be compared to a reference area's distribution, and allow areas to be easily compared to each other.¹⁵ If the LQ is equal to 1, then the industry has the same share of its employment in the target area as it does in the reference area. An LQ greater than 1 indicates an industry with a greater share of target area employment than is the case in the reference area.

Comparing the 2012 employment pattern in New Hampshire (target area) with that of the United States (reference area) reveals that in 2012, New Hampshire had an LQ higher than 1 in Educational services (1.43), Retail trade (1.33), Arts, entertainment, and recreation (1.19), Manufacturing (1.16), Health care and social assistance (1.06), and Finance and insurance (1.03). For the most part, the LQ for these industries have changed only slightly since 2001,

with the exception of Educational services which, in spite of a lower concentration of employment compared to 2001, still exhibits the highest concentration of employment when compared to the nation. Maintaining an LQ greater than 1 over time indicates some competitive advantage for New Hampshire in these industries.

New Hampshire's triple stronghold. New Hampshire's three largest sectors, all with an LQ greater than 1, have been Retail trade, Health care and social assistance, and Manufacturing. In 2007, Healthcare and social assistance overtook Manufacturing as the second largest sector due to its steady growth, while Manufacturing lost a significant number of jobs. Together, these three sectors account for just under half of total private covered employment in New Hampshire, compared to slightly less than 40 percent for the nation.

¹⁵ Bureau of Labor Statistics definitions, <http://www.bls.gov/help/def/lq.htm>

Trends for Industries and Occupations – Employment Projections

Industry Projections¹⁶

Over the ten-year period of 2010 to 2020, total employment in New Hampshire is expected to grow by 10.4 percent, an average of one percent per year. Estimated employment is expected to increase from 662,146 to 730,710, a gain of 68,564 jobs.

Projected growth for the U.S. for the same period is 14.3 percent, growing from 143.1 million jobs in 2010 to 163.5 million jobs in 2020.

- About 88.5 percent of all new jobs will be in services while just over eight percent will be in goods-producing industries. Service-providing industries are projected to grow by 11.7 percent, while goods-producing industries are expected to grow by 6.1 percent.
- Employment in *Construction* is expected to resurge, growing nearly 25 percent over ten years, with more than 5,300 jobs added.

New Hampshire Industry Projections, 2010 - 2020

Industry	2010 Employment	2020 Employment	Numeric Change	Percent Change
Total Employment	662,146	730,710	68,564	10.4%
Goods-Producing Industries	93,589	99,279	5,690	6.1%
Agriculture, Forestry, Fishing and Hunting	5,912	6,046	134	2.3%
Mining	491	486	-5	-1.0%
Construction	21,418	26,750	5,332	24.9%
Manufacturing	65,768	65,997	229	0.3%
Service-Providing Industries	518,025	578,728	60,703	11.7%
Utilities	2,514	2,352	-162	-6.4%
Wholesale Trade	25,923	29,534	3,611	13.9%
Retail Trade	92,331	98,817	6,486	7.0%
Transportation and Warehousing	15,340	16,317	977	6.4%
Information	11,475	12,564	1,089	9.5%
Finance and Insurance	27,308	29,532	2,224	8.1%
Real Estate and Rental and Leasing	6,714	7,665	951	14.2%
Professional, Scientific, and Technical Services	28,850	35,633	6,783	23.5%
Management of Companies and Enterprises	8,075	8,454	379	4.7%
Administrative and Support and Waste Management Services	27,230	31,881	4,651	17.1%
Educational Services ^a	62,617	67,149	4,532	7.2%
Health Care and Social Assistance ^b	84,292	104,636	20,344	24.1%
Arts, Entertainment, and Recreation	10,980	12,333	1,353	12.3%
Accommodation and Food Services	51,363	54,980	3,617	7.0%
Other Services (Except Government)	23,352	25,494	2,142	9.2%
Government ^c	39,661	41,387	1,726	4.4%
Self-employed and Unpaid Family Workers	50,532	52,703	2,171	4.3%

^a Employment for public schools and colleges is included in Educational Services.

^b Employment at the State Hospital is included in Health Services.

^c Government does not include employment for the Federal prison in Coos County. When operational, the prison is expected to add approximately 250 jobs.

¹⁶. New Hampshire Employment Projections by Industry and Occupation: base year 2010 to projected year 2020, prepared by New Hampshire Employment Security, Economic and Labor Market Information Bureau, June 2012, p 1, <http://www.nhes.nh.gov/elmi/products/documents/projections.pdf>

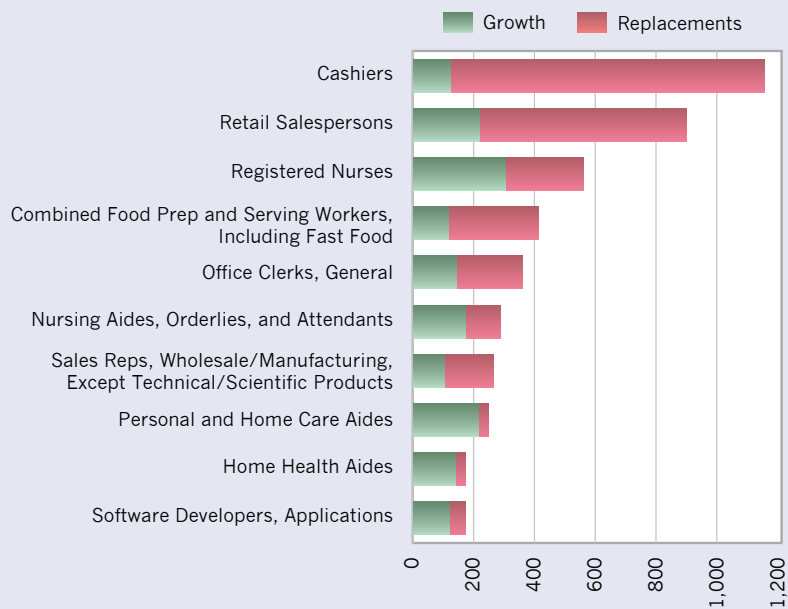
- The *Manufacturing* sector is projected to add employment for the first time since the 1998-2008 projections. Growing subsectors include: *Food; Wood products; Machinery; Chemical; Plastics and rubber; Nonmetallic mineral product; Fabricated Metal; and Electrical equipment, appliance, and components.*
- *Retail trade* will continue to be the state's largest employing sector and is expected to add 6,500 new jobs over the decade, an increase of 7.0 percent.
- *Health care and social assistance* is expected to add the most jobs by 2020, accounting for nearly 30 percent of all new jobs.

- *Professional, scientific, and technical services* is expected to see growth of nearly 24 percent and add 7,000 jobs.

Occupational Trends¹⁷

- Employment in all of the 22 major occupational groups is projected to increase. *Office and administrative support* occupations are expected to add 6,500 jobs over the decade while *Healthcare support* occupations are projected to grow by a leading 23.4 percent.
- The need to replace workers who retire or move into other occupations will dominate employment opportunities over the ten-year period. Nearly two-thirds of all openings will come from replacement needs.
- Employment in occupations requiring personally-delivered services is projected to grow the fastest. Occupational groups with workers who commonly have person-to-person contact in their daily work include: *Community and social services, Healthcare practitioners and technical occupations, Healthcare support occupations, and Personal care and service occupations.*
- The aging of New Hampshire's population will continue to drive the need for workers in the health and personal care field.
- *Computer and mathematical occupations, Healthcare practitioners and technical occupations, and Healthcare support occupations* are each expected to have a marginally higher number of openings due to job growth than openings due to replacements.

Chart 11: Highest Average Annual Openings, 2010-2020



Source: New Hampshire Employment Projections by Industry and Occupation: base year 2010 to projected year 2020, Economic and Labor Market Information Bureau

17. Ibid.

Quarterly Workforce Indicators (QWI) Age by Industry

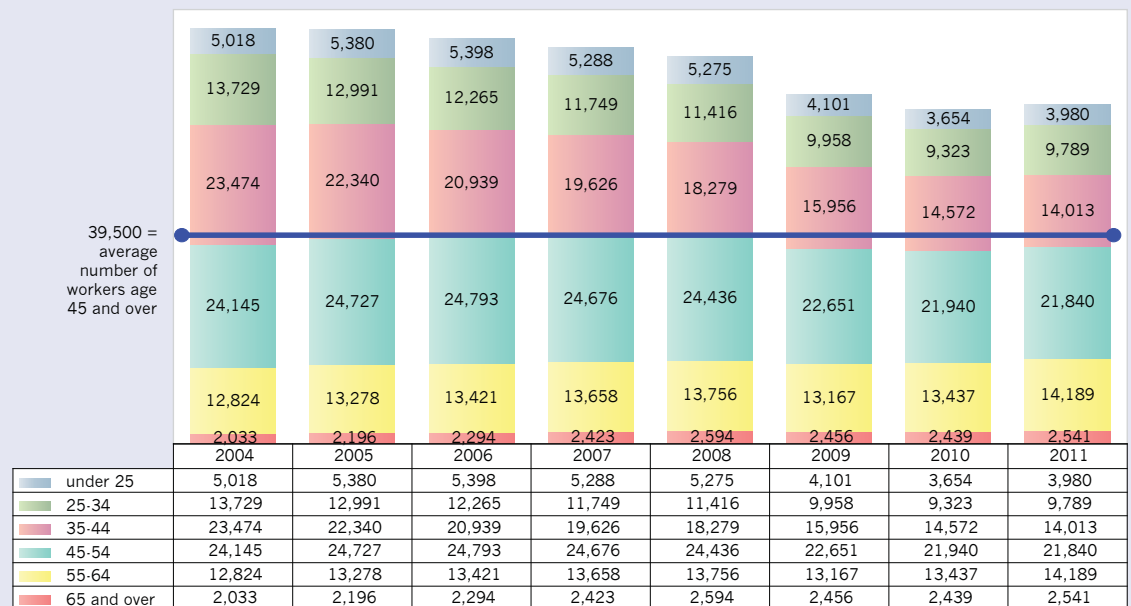
The Challenge and Opportunity in Manufacturing

Between 2004 and 2011, New Hampshire's private Manufacturing sector lost over 20 percent of employment, declining from over 80,000 jobs to about 66,000 jobs. Over that period, the number of workers age 45 and above remained relatively stable, averaging 39,500, while the number of workers under the age of 45 decreased by nearly 15,000 — approximately the same as the decline in private manufacturing employment.¹⁸

In 2004, 48.0 percent of manufacturing jobs were held by workers age 45 or more; by 2011 this share had increased to 58.1 percent. One of the particular challenges to the industry, and to the workforce training community,

is replacing current workers as they retire or otherwise leave manufacturing occupations. An aging manufacturing workforce will ultimately require replacement, and without an influx of younger workers, this will be difficult to achieve. An illustration of this need is reflected in long-term employment projections for workers in production occupations. Employment for these workers is heavily concentrated in manufacturing industries. Production occupations are expected to add about 1,350 jobs between 2010 and 2020, with about 1,000 average annual openings projected. Just over 80 percent of average annual openings, however, are projected to be replacement openings, the demand for workers to replace those who leave the job due to retirement or some other reason.¹⁹

Chart 12: The largest impact of the decline in manufacturing employment was on workers under the age of 45



Source: U.S. Census Bureau, Local Employment Dynamics Program

18. Workers by age group based on data from the Local Employment Dynamics program, U. S. Census Bureau

19. New Hampshire Employment Projections by Industry and Occupation: base year 2010 to projected year 2020, Economic and Labor Market Information Bureau, New Hampshire Employment Security (June 2012), p. 29. <http://www.nhes.nh.gov/elmi/products/documents/projections.pdf>

Despite the decrease in manufacturing employment between 2004 and 2011, the sector remains vital to the New Hampshire economy, and employment in this sector is expected to grow slightly over the next decade.

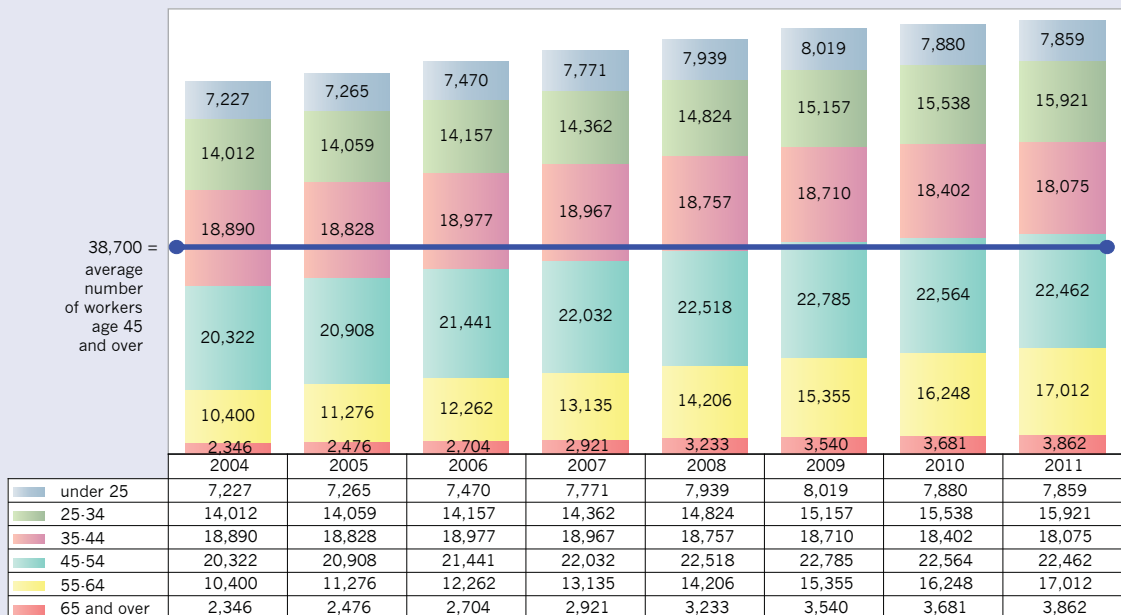
The Opportunity in Health care and social assistance

Between 2004 and 2009, the private Health care and social assistance sector grew by about 2.5 percent annually, increasing by about 14 percent overall. Employment rose by 10,400, moving from about 73,000 to just over 83,500 jobs. This trend has not continued, however, with growth of just 1.0 percent in 2010 and 2011, adding fewer than 1,000 jobs each year.

By 2011, the number of workers age 45 and above within this industry continued to grow, increasing by 10,000 (over 8,000 of these workers were age 55 and above), while the number of workers under the age of 45 remained generally stable, expanding by less than 2,000.²⁰ In 2004, about 45.2 percent of private Healthcare and social assistance sector jobs were held by workers age 45 or more; by 2011 this had increased to 50.9 percent.

Employment in Healthcare and social assistance (private and public) is projected to grow to over 104,500 in 2020. While employment in this industry comes from many different occupational groups, workers in

Chart 13: The largest impact of the growth in private healthcare employment was on workers over the age of 45



Source: U.S. Census Bureau, Local Employment Dynamics Program

²⁰ Workers by age group based on data from the Local Employment Dynamics program, U. S. Census Bureau

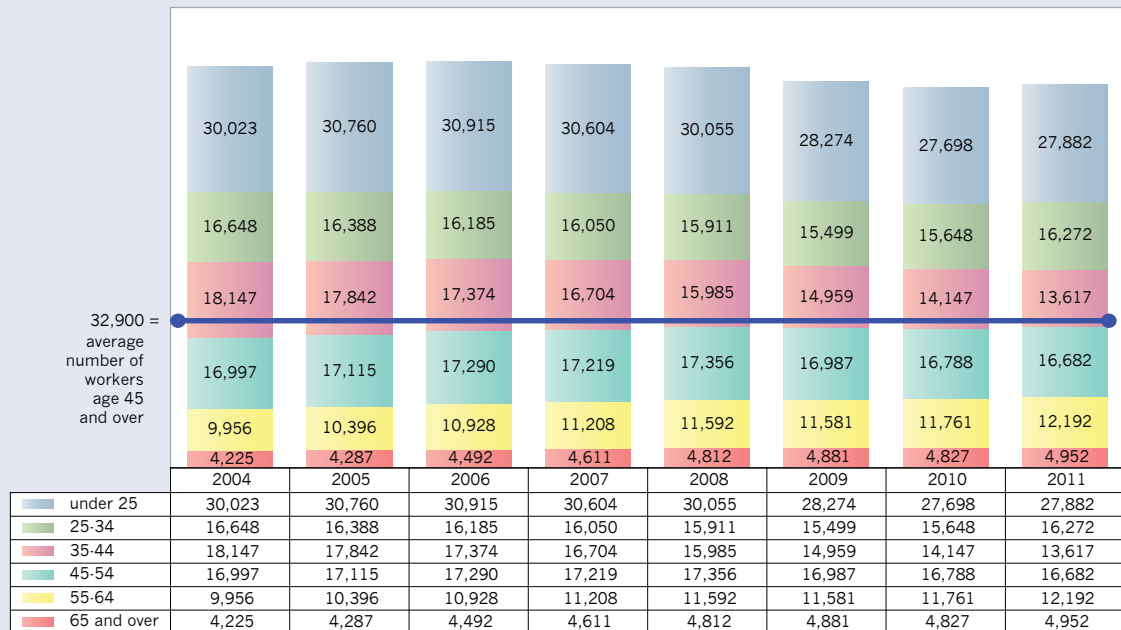
healthcare practitioners and technical occupations and healthcare support occupations predominate. These groups combined are expected to provide about 2,200 annual openings (1,500 and 700, respectively) between 2010 and 2020. As with manufacturing, an aging workforce in the private healthcare industry will create replacement opportunities, although new job growth is expected to create a similar number of annual openings for healthcare-related workers as well.

Opportunities For All in Retail Trade

Total employment in Retail trade did decline slightly as the last recession hit New Hampshire, but has started to

rebound. This sector is important to New Hampshire for several reasons: it is linked to the travel and tourism industry, it provides opportunities for youth to gain workplace experience and exposure to application of soft skills, it provides older workers with opportunities to choose part-time or seasonal employment instead of fully retiring from the labor market, and the jobs in this industry are readily available throughout the state. As the New Hampshire population ages, the industry may attract additional older workers. Given the projected increased life expectancy for the baby boomer generation, it is likely that an increased number of these aging workers will stay attached to the workforce longer than in the past.

Chart 14: Private sector Retail trade employment provides opportunities for both youth and older workers



Source: U.S. Census Bureau, Local Employment Dynamics Program

In this sector, those under the age of 25 held about a 30 percent share of employment each year from 2004 through 2011. Yet over the same time frame, the number of those under the age of 55 working in retail trade has slowly decreased, while the number of those 55 and over has steadily increased.

It is interesting to note that for those 55 to 64 years of age, retail trade employment grew by 22.5 percent from 2004 through 2011, while for those 35 to 44 years of age, retail trade employment declined by 25.0 percent over the same period.

Current Supply and Demand of Workers

Unemployment by Occupational Group

The level of unemployment in New Hampshire has decreased since its peak in winter 2010, but is still elevated when compared to the state's pre-recession level. The average unemployment rate in New Hampshire was consistently below four percent prior to the Great Recession. The statewide average unemployment rate for the period January to December 2012 was 6.0 percent. But this average rate for all occupational groups masks the reality facing the unemployed with different work experiences, educational attainment and job training competency.

The following table displays data from the Current Population Survey²¹ of the employment status for persons in each major occupational group.

One method of identifying a possible over-supply of workers is the unemployment rate for occupational groups. This rate is calculated by dividing the estimated number of unemployed workers by the labor force (the sum of employed workers plus unemployed workers) for each occupational group.

In 2012, the unemployment rate for persons in *Community and social service* occupations continued to be very low, 0.9 percent, followed by persons in

Employment and Unemployment by Occupational Group January 2012 - December 2012

	Employed	Unemployed	Unemployment Rate for Group
Total, All Occupations	697,186	41,510	6.0%
Community and social service occupations	13,720	121	0.9%
Healthcare practitioner and technical occupations	44,819	659	1.5%
Education, training, and library occupations	49,379	1,528	3.1%
Management occupations	84,329	2,800	3.3%
Life, physical, and social service occupations	6,088	207	3.4%
Business and financial operations occupations	35,258	1,202	3.4%
Architecture and engineering occupations	18,752	739	3.9%
Installation, maintenance, and repair occupations	26,583	1,053	4.0%
Computer and mathematical science occupations	28,795	1,146	4.0%
Protective service occupations	9,291	425	4.6%
Legal occupations	7,394	358	4.8%
Office and administrative support occupations	81,710	4,237	5.2%
Arts, design, entertainment, sports, and media occupations	14,037	755	5.4%
Sales and related occupations	78,244	4,652	5.9%
Personal care and service occupations	23,126	1,399	6.0%
Food preparation and serving related occupations	34,952	2,503	7.2%
Building and grounds cleaning and maintenance occupations	22,005	1,586	7.2%
Healthcare support occupations	15,317	1,115	7.3%
Production occupations	37,541	3,472	9.2%
Farming, fishing, and forestry occupations	2,685	258	9.6%
Construction and extraction occupations	34,751	3,524	10.1%
Transportation and material moving occupations	28,411	4,004	14.1%
Armed Forces	0	259	N/A
New Entrants	0	3,508	N/A

Source: U.S. Census Bureau, unpublished data from the Current Population Survey (12-month-average)

²¹. U.S. Bureau of the Census, unpublished data from the Current Population Survey

Healthcare practitioners and technical occupations at 1.5 percent. The very low unemployment rate for persons in *Community and social service* occupations could be related to the level of educational attainment required, but likely also due to the combination of a relatively low level of pay and high level of stress, creating a larger flow of persons transitioning out of these occupations. In addition, shifting government appropriations for social service programs can impact workers in these occupations.

The low unemployment rate among *Healthcare practitioners* might also be related to the high level of educational attainment as well as professional licensure commonly required to enter these occupations. Such requirements can limit the number of persons qualifying for openings in these occupations, as well as opportunities to transfer skills between occupations. In comparison, the unemployment rate for persons in *Healthcare support* occupations was 7.3 percent, higher than the statewide average.

Persons in *Transportation and material moving* occupations are experiencing the highest unemployment rate, 14.1 percent. Employment in this occupational group is highly demand-driven and very sensitive to the aggregate level of consumer spending. Most jobs in these occupations have a lower education attainment requirement (high school diploma or less), making the potential pool of persons qualifying for such positions fairly unlimited. Due to large employment declines in the *Manufacturing and Construction* industry

sectors leading up to and during the Great Recession, persons with prior work experience in *Production* occupations and *Construction and extraction* occupations continue to face a high level of unemployment.

Persons with a background in the Armed Forces as well as new entrants into the labor force continue to flow into the category of the unemployed. If, however, veterans of the Armed Forces and new entrants join the labor force as employed individuals, these persons are categorized by their current occupation of employment.

Current Supply to Projected Demand Ratios

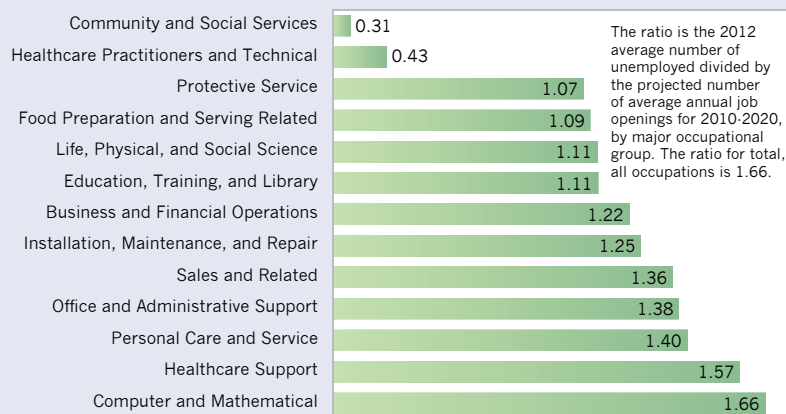
To gauge the potential gaps between the current supply of available workers and the demand for workers, the 2012 average number of unemployed persons by major occupational group (as a proxy for an over-supply of workers)²² was compared to the expected demand for workers, defined by projected average annual openings for 2010 through 2020.²³

Two occupational groups have more average annual openings than unemployed persons: *Healthcare practitioner and technical* occupations and *Community and social service* occupations. These two occupational groups also hold the lowest unemployment rates. A low ratio (less than one) of current supply to projected demand means that employers are likely to have a more difficult time finding workers to fill available job openings.

22. Ibid.

23. New Hampshire Employment Projections by Industry and Occupation: base year 2010 to projected year 2020, prepared by New Hampshire Employment Security, Economic and Labor Market Information Bureau, June 2012, <http://www.nhes.nh.gov/elmi/products/documents/projections.pdf>.

Chart 15: Occupations with a lower than average ratio of unemployed to average annual openings. These occupations are less competitive, with under two unemployed persons per opening.



Source: U.S. Bureau of the Census, unpublished data from the Current Population Survey; New Hampshire Employment Projections by Industry and Occupation 2010-2020, Economic and Labor Market Information Bureau, New Hampshire Employment Security

The ratio of average annual openings to unemployed persons for the total of all occupations is 1.66. One occupational group, *Computer and mathematical* occupations, has a ratio equal to the average for all occupations. The remaining occupational groups in Chart #14 have a ratio below the average for all occupations, but are above one. This means that while there are still more unemployed persons in each group than there are average annual job openings, these occupations are still less competitive than the average for all occupations.

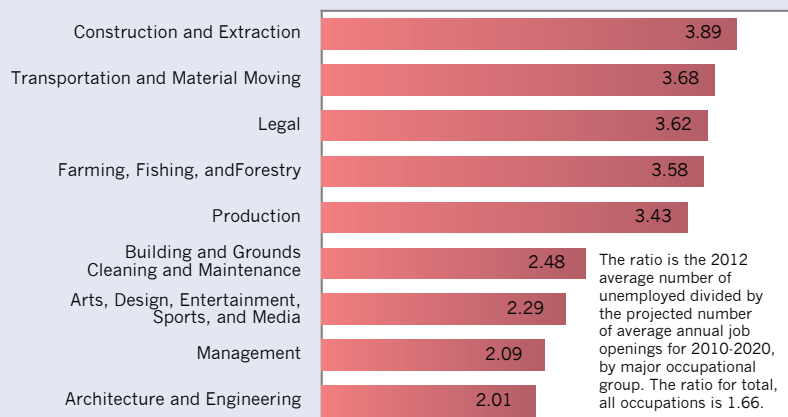
For some occupational groups, there is no correlation between unemployment rate and unemployed to annual opening ratio. Examples of occupational groups with a low ratio of current supply to projected demand but a high

unemployment rate are *Food preparation and serving related* occupations, *Healthcare support* occupations and *Personal care and service* occupations. These occupational groups have unemployment rates higher than the statewide average for all occupations despite having low ratios of unemployed to projected annual openings. One explanation for this discrepancy is that in spite of the many openings available in these occupational fields, a larger portion of New Hampshire's population qualifies for occupations in these groups, as a lower level of educational attainment is required. Another factor is the typically high turnover rate in these occupations, as workers change jobs more frequently.

Many of the jobs in *Food preparation and serving related* occupations require less than a high school diploma, and often are among the first jobs for youth, who offer a steady inflow of workers. Though many of the positions in *Healthcare support* occupations and *Personal care and service* occupations require at least a postsecondary certificate, these certificate programs are generally courses of less than one year in length, and no prerequisites are required to enroll in these training programs. In other words, the price of admission is still much lower for occupations in these groups than for occupations requiring a bachelor's degree and above.

There are about four times as many unemployed persons in *Production* occupations as there are projected annual openings for this field. Similar high ratios of unemployment (over-supply) to projected demand are evident in *Construction and extraction* occupations, as well as *Transportation and material moving* occupations. For these occupational groups, high current

Chart 16: Occupations with an above average ratio of unemployed to average annual openings. These occupations are more highly competitive, as there are two or more unemployed persons per job opening.



Source: U.S. Bureau of the Census, unpublished data from the Current Population Survey; New Hampshire Employment Projections by Industry and Occupation 2010-2020, Economic and Labor Market Information Bureau, New Hampshire Employment Security

supply to demand ratios fall in line with high unemployment rates. A large share of occupations in these groups require no more than a high school diploma to qualify for employment. On the other hand, specialized apprenticeship and moderate- and long-term on-the-job training is required for many of these occupations; the lack of workers

entering such training programs (the pipeline) has the potential to create a shortage of skilled workers (this situation has been framed as a Skills Gap in U.S. Manufacturing).

Other examples of occupational groups with a high ratio of current unemployment to projected annual demand but an average or lower rate of unemployment are *Legal* occupations, *Architecture and engineering* occupations, and *Management* occupations. Projected annual openings for these types of occupations are relatively low, but the prerequisites for entering occupations in these groups are generally high, restricting the pool of persons qualified for these positions.

Despite the fact that the current economy is highly dependent on technology, the number of annual openings in Computer and mathematical science occupations only account for 3.0 percent of total projected annual openings. This is not to downplay the importance of technology, as the majority of jobs in any of the occupational groups are continually more technology-driven; however, most occupations are users and not producers or creators of technology and technical products.

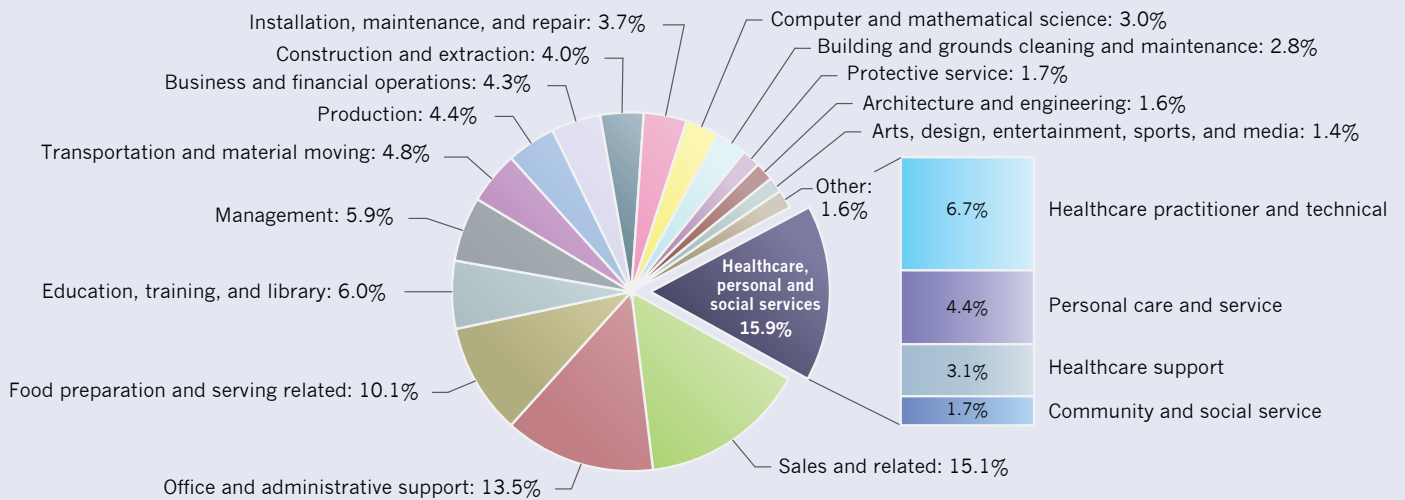
Skills Gap Analysis

New Hampshire employment projections for 2010 to 2020 show expected high demand in occupations related to health care, personal services, and social services. There are also a substantial share of openings in *Sales and related occupations*, *Office and administrative support occupations*, and *Food preparation and serving related occupations*. These data identify employment prospects for workers in specific occupations. Yet along with job opening prospects, the skills and knowledge needed by workers is equally important to workplace success. A *skills gap analysis* adds another dimension to the labor market picture.

Skills-Based Projections software (SBP)²⁴ was used to assess the differences between the skills and knowledge in the current workforce and those expected to be in demand in ten years. The software combines New Hampshire occupational projections for 2010 to 2020 with O*NET data on skills, knowledge, and work activities to compare the current worker supply to projected demand.

The *Skills Gap Index* is a standardized measure based on the relative change in demand for specific skills and knowledge areas. Higher index scores mean larger changes (or gaps) between current supply (2010 base employment) and future

Chart 17: Share of Projected Average Annual Openings by Major Occupational Group



Source: New Hampshire Employment Projections by Occupation for 2010-2020, Economic and Labor Market Information Bureau

24. The Skills-Based Projections software uses state occupational projections and O*NET as the two primary data input. O*NET is used in the generation of a broad array of career information products. It provides more than one hundred measures of knowledge, skills, and work activities specific to 726 SOC-based occupations. Simply, the SBP software attaches state employment projections to skill, knowledge, and work activity measures in the O*NET database. For each specific knowledge, skill and work activity, the SBP creates a set of links to all occupations for which each is required. The SBP then estimates base and projected skill demand by summing the employment levels for the linked occupations.

The current version of the Skills-Based Projections (SBP) software used an earlier version of the O*NET database (see technical note http://dev.projectionscentral.com/sbproj/downloads/SBP_2_ReleaseNotes.pdf), resulting in approximately 14.5 percent of occupational employment being excluded from the analysis. The majority of the excluded occupations are residual, or All Other, occupations, for which O*NET does not assess skills, knowledge, or work activities.

demand (2020 projected employment) for these skills or knowledge areas relative to other skills and knowledge areas.²⁵ A gap index close to or equal to 100 means that the skill or knowledge area will be in strong demand.

For New Hampshire, the Skills Gap Index shows that the gap between current supply and future demand is largely related to basic communication and workplace interaction skills, known as *soft skills*. The skills of reading, active listening, creative thinking, and speaking are needed by workers in nearly all occupations, regardless of educational level or years of experience.

While soft skills dominate the skills gap for workers in New Hampshire, *customer and personal service* dominates the knowledge gap. As discussed previously, occupations that deliver services face-to-face are expected to grow. Personally-delivered services require the ability to communicate with customers. The second-highest ranking knowledge in the Knowledge Gap Index is the English language. Even though people from all over the world who speak a multitude of languages live and work in the United States, the ability to communicate clearly and correctly in the English language remains in high demand in the workplace.

All Occupations - 2010-2020 NH Outlook Skills Gap Index

Reading Comprehension	100.0	Understanding written sentences and paragraphs in work related documents.
Active Listening	97.1	Understanding the implications of new information for both current and future problem-solving and decision-making.
Critical Thinking	94.3	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Speaking	91.4	Talking to others to convey information effectively.
Active Learning	88.6	Understanding the implications of new information for both current and future problem-solving and decision-making.
Coordination	85.7	Adjusting actions in relation to others' actions
Instructing	82.9	Teaching others how to do something.
Monitoring	80.0	Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
Writing	77.1	Communicating effectively in writing as appropriate for the needs of the audience.
Time Management	74.3	Managing one's own time and the time of others.
Social Perceptiveness	71.4	Being aware of others' reactions and understanding why they react as they do.

²⁵. Skills Gap Index: For each job requirement, a standardized measure of the difference (gap) between the current supply and projected demand, calculated in four steps:

1. Skill Weight: The proportion of the total current labor supply meeting specific job requirement criteria. It is calculated as the job requirement base-year employment divided by total base-year employment.
2. Skill Weight Percent Change: Employment change across the projection horizon, weighted by the percentage of total base-year employment. $((\text{Projected Employment} - \text{Base Employment}) / \text{Base Employment}) * \text{Skill Weight}$.
3. Skill Weight Rank: A rank score, of Skill Weight Percent Change, within a job requirement set.
4. Skill Gap Index: The Skill Weight Rank standardized from 1 to 100.

STEM Skills and Knowledge²⁶

The lack of workers with skills and knowledge in STEM (Science, Technology, Engineering and Math) occupations has been in the spotlight recently. Though an under-supply of graduates from New Hampshire educational institutions qualified for STEM occupations²⁷ has been identified, STEM-related skills are not high in the

Skills Gap Index. On the other hand, knowledge areas related to STEM occupations rank among the top ten most in-demand knowledge areas over the next ten years. *Psychology, education and training, mathematics, computer and electronics, and medicine and dentistry* are knowledge areas connected to STEM occupations that rank among those with the widest gaps between current supply and projected demand.

**All Occupations - 2010-2020 NH Outlook
Knowledge Gap Index**

Customer and Personal Service	100.0	Principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
English Language	97.0	The structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
Psychology	93.9	Human behavior and performance; individual differences in ability, personality, and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders.
Education and Training	90.9	Principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.
Mathematics	87.9	Arithmetic, algebra, geometry, calculus, statistics, and their applications.
Clerical	84.8	Administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.
Administration and Management	81.8	Business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
Sales and Marketing	78.8	Principles and methods for showing, promoting, and selling products or services. This includes marketing strategy and tactics, product demonstration, sales techniques, and sales control systems.
Computers and Electronics	75.8	Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Medicine and Dentistry	72.7	The information and techniques needed to diagnose and treat human injuries, diseases, and deformities. This includes symptoms, treatment alternatives, drug properties and interactions, and preventive health-care measures.
Mechanical	69.7	Machines and tools, including their designs, uses, repair, and maintenance.

²⁶. For more information, see *STEM in New Hampshire: A Labor Demand-Supply Analysis*, Economic and Labor Market Information Bureau, New Hampshire Employment Security. April 2013. <http://www.nhes.nh.gov/elmi/products/documents/stem.pdf>

²⁷. The *STEM in New Hampshire: A Labor Demand and Supply Analysis* paper assessed demand and supply based on the US Bureau of Labor Statistics definition of STEM occupations, which includes occupations in health care and social science along with occupations related to science, technology, engineering, and mathematics.

Summary

The most recent recession impacted all parts of the country, and New Hampshire was no exception. Yet, New Hampshire did fare better than the nation as a whole. The trend in non-farm employment decline was not as steep, the duration of the decline was not as long, and unemployment did not rise as high in New Hampshire as in the nation as a whole. Through the middle of 2013, economic recovery is progressing, but for the state as well as the nation, it has been a long, slow process.

The current slow rate of employment growth continues to impact those who commonly require assistance to find employment opportunities — youth, the disabled, and the long-term unemployed. As job openings become available, employers frequently hire applicants who are willing and available to work full time, and are either currently employed or have recent labor force experience. The low number of job openings and intense competition for workers of all ages and abilities has left workers without recent experience, who cannot work full-time year-round, or have other employment issues with fewer options.

This situation is not expected to stagnate, however. Employment projections for 2010 through 2020 estimate annual growth of one percent, adding nearly 70,000 jobs over ten years. For the first time in over ten years, the Manufacturing sector is expected to add employment. Manufacturing is still the third-largest employing industry sector in New Hampshire, after the Retail trade and Healthcare and social assistance sectors. The Construction sector is expected to surge by nearly 25 percent over the ten-year period, with the

Healthcare and social assistance sector and the Professional, scientific, and technical services sector close behind.

On the occupational side, though new job growth will still be slow, the need to replace workers who leave the labor force will create demand — over 15,500 job openings will be created annually due to replacement needs. Workers who provide personally-delivered services will see the best employment opportunities. High employment levels in Retail trade will create opportunities for Cashiers, Retail salespersons, and Sales representatives, while the Healthcare and social assistance sector will create opportunities for Registered nurses, Nursing aides, Personal and home care aides, and Home health aides. Applications software developers will also see new job growth.

The skills and knowledge areas that workers will need for jobs in demand are largely soft skills, such as basic communication and workplace interaction. Reading, active listening, creative thinking, and speaking will be needed by workers in nearly all occupations. The ability to provide customer service and communicate in the English language will be needed to meet the expected high demand for workers in occupations requiring person-to-person contact.

The largest share of New Hampshire's population is still of working age (25 to 64 years), but the state's population is older than most states. New Hampshire's median age of 42.0 years ranks third-oldest among all states; five of the six New England states rank in the top ten for median age (Massachusetts ranks in

11th place). Contributing to the state's high median age is low growth in the younger segment of New Hampshire's population. Between 2002 and 2012, the number of residents age 19 and under declined by over eight percent. Without growth in population under age 19, in-migration is the only source of new labor to fill projected job openings.

Even though the state is still recovering from the latest recession, the age of the population will soon begin to impact labor demand. The lack of new labor force entrants coinciding with the retirement of the baby boom generation means that New Hampshire faces a potential labor shortage in the not-so-distant future.