New Hampshire
Economic Conditions
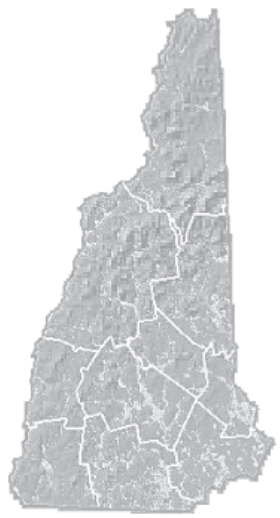
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New Hampshire
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Short-term Projections: 2005Q4-2007Q4
A Skills-Based Perspective

*I*n many prior publications, employment analysis simply looked at what the growing and declining occupations would be over the projection period. Occasionally, an article would probe a little deeper and analyze growing occupations by training category—the basic educational and experience required to enter a particular job. Little consideration was given to the specific set of unique skills required in the occupation.

National research on future demand for these competencies, categorized as *skills, knowledge*, and (*work*) *activities* or SKA, has been available through the O*Net system the

nation's primary source of occupational information.

It would be an added bonus if SKA projections can be made specific to New Hampshire, by combining the occupational projections with the SKA approach of the O*Net system.

Skills and knowledge are important because they are transferable from job to job. An individual will most likely work in several jobs over the course of a lifetime. That individual's skills and knowledge can be carried from job to job and can be used in many occupations.

Employers have to evaluate a potential employee's occupational competen-

Projected Demand for Occupations Using Reading Comprehension

	2007Q4 Employment
Registered Nurses	13,054
Office Clerks, General	12,473
First-Line Supervisors/Managers of Retail Sales Workers	12,202
Teacher Assistants	11,472
Secretaries, Except Legal, Medical, and Executive	8,200
Elementary School Teachers, Except Special Education	8,127
First-Line Supervisors/Managers of Office and Administrative Support Workers	8,050
Nursing Aides, Orderlies, and Attendants	7,426
General and Operations Managers	6,411
Executive Secretaries and Administrative Assistants	5,879

cies before they make a hiring decision. Having access to projected skills that will be in demand in the short-term provides valuable information to students, job counselors, curriculum planners, and workers.

In a recent report *Looking Forward,* the Economic and Labor Market Information Bureau considered a ten-year forecast in the demand for occupational competencies.

In *Looking Forward*, Skills Based Employment Projections was introduced as a tool that can project future needs using the occupational definitions in the Standard Occupational Classification System (SOC). Skills based projections use the descriptors: *knowledge, skills*, and (*work*) *activities*.

This article considers a shorter time-frame. A two-year forecast, which is published regularly in Economic Conditions in New Hampshire, captures the effect of the business cycle on specific industries and occupations. This version of projections uses the fourth quarter of 2005 as a base and looks out two years to the fourth quarter of 2007.

Skills are learned capabilities specific to job activities. Examples include reading comprehension, active listening, and speaking.

Knowledge is a learned set of facts required in many work situations. Examples include customer and personal service, English language, and clerical.

There is some overlap between knowledge and skills: mathematics can be considered a skill or it can fall under the knowledge descriptor. The important distinction to remember is that knowledge is a learned set of facts while skills are applied knowledge.

The third descriptor is called *work activities* and encompasses tasks or abilities that are needed to perform jobs. Some examples include *establishing and maintaining interpersonal relationships*, *getting information needed to do the job*, and *handling and moving objects*[1].

Demand for Skills

Communication is a key component of skills that are in current supply and in projected demand, during the short-term projection period. *Reading comprehension*, *active listening*, *speaking*, and *writing* are the four skills with the greatest demand. The leading skill is reading comprehension, which is shared by 294,453 workers in 2005Q4, meaning that they were employed in occupations that have been identified as needing that skill.

Reading comprehension relates to 294,500 current workers and is utilized by 251 different occupations that are projected to grow in the short term. Among the leading occupations using this skill are Registered nurses, General office clerks, and First-line supervisors and managers of retail sales workers.

Active listening is another skill where Registered nurses lead the list in the number of workers employed in 2005Q4. General office clerks, and First-line supervisors and managers of retail sales workers follow in order.

Speaking closely correlates with the two skills mentioned above, as the leading occupations are Registered nurses, First-line supervisors and managers of retail sales workers, and Teacher assistants.

These skills are also the top four in terms of projected demand for 2007Q4, indicating the continuing importance of communication.

Registered nurses rank first in each of *active listening*, *speaking*, and *reading comprehension*. General office clerks and First-line supervisors of retail sales workers are second and third respectively in *reading comprehension* and *active listening*. Teacher assistants are ranked third in demand for *speaking* skills.

Demand for Knowledge

Customer and personal service, English language, and *clerical* are the leading knowledge areas. By far, *Customer and personal service* has the highest employment level, with 245,098 jobs represented. Some of the leading occupations that utilize this knowledge area are Retail salespersons, with nearly 29,000 employed in 2005, Registered nurses, employing 13,000, and General Office clerks with 12,500. Overall, 123 different occupations out of nearly 700 are included and considered "demand occupations" because of positive growth during the projection period.

English language is next, dropping down to 113,000 jobs, but representing 106 different occupations. The top occupations in this component are Teacher assistants; Secretaries, except medi-

Supply and short-term demand for specific skills and the number of occupations with positive employment growth in 2007Q4
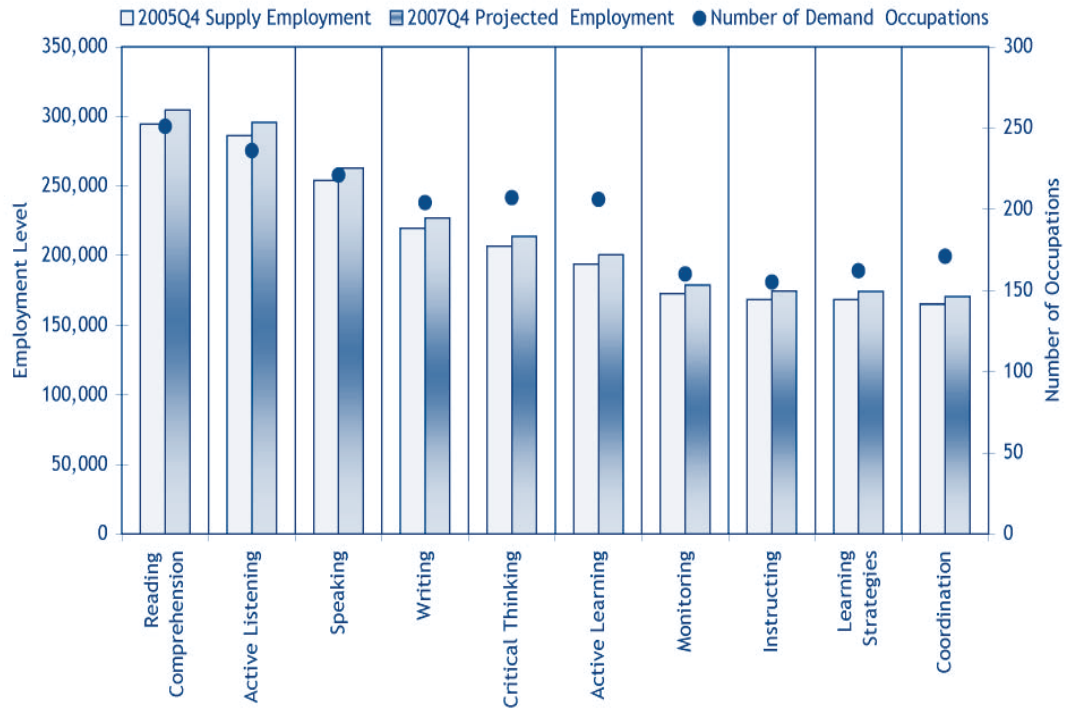
Supply and demand for knowledge areas and the number of occupations with positive growth
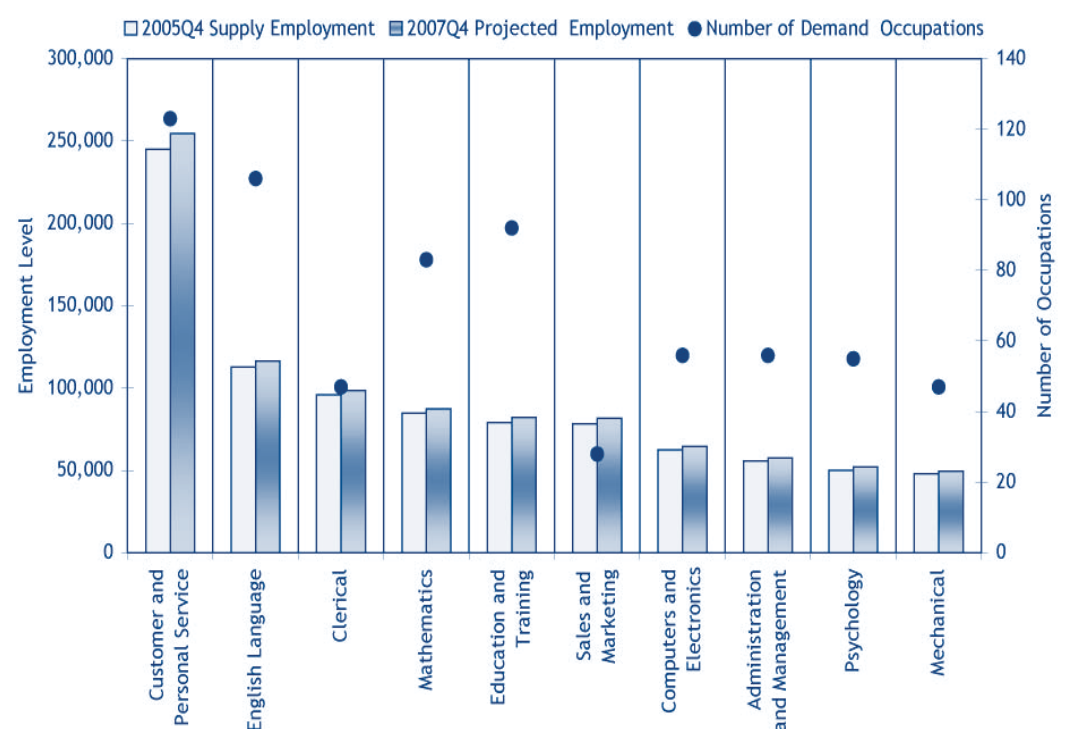
cal, legal, and executive; and General and operations managers.

Clerical knowledge is next, where 96,000 are employed using this skill. This compentancy, however, is covered by only 47 separate occupations. Of these occupations, leading employment is for General office clerks, with 12,500 workers; Bookkeeping, accounting, and auditing clerks with 10,300; and Secretaries, except legal, medical, and executive, at 8,200.

Demand for Work Activities

Establishing and maintaining interpersonal relationships is the leading work activity as it affects 319,500 workers in 201 occupations. Retail salespersons, by far, is the leading occupation in this category with 28,800 workers. Registered nurses again appear as do First-line supervi-

sors and managers of retail sales workers.

Getting information needed to do the job is an activity shared by 218,600 workers in 207 different occupations. The top occupations that demand this work activity are Registered nurses, Teacher assistants, and Customer service representatives.

The third most prevalent work activity is *communicating with supervisors, peers, or subordinates*, which is common to 208,500 workers in 193 growing occupations. Again, Registered nurses lead the list with more than 13,000 employed in 2005Q4.

Summary

If there is a common thread in *knowledge, skills*, and (*work*) *activities* projected

Projected Short-term Work Activities Demand
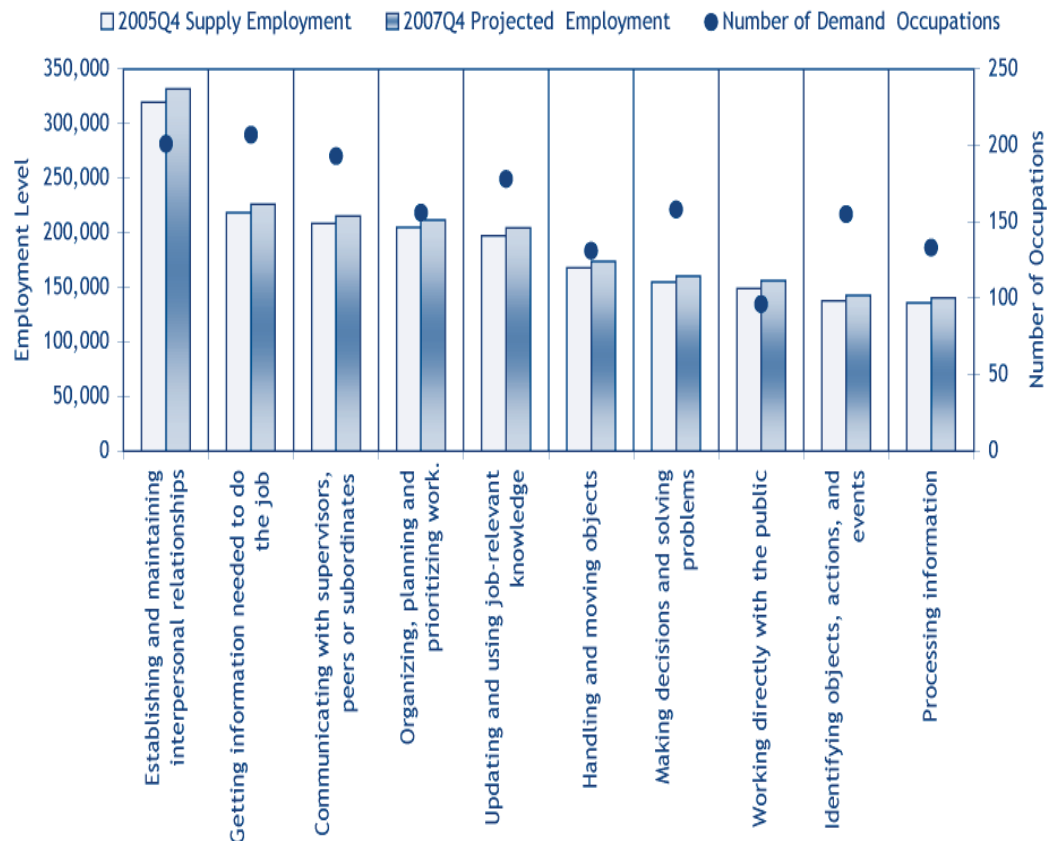
to be in demand, it is the ability to communicate effectively in writing and speech with customers, supervisors, and peers. Occupations that will be in the most demand, such as Registered nurses, extensively use these skills and abilities. When there is a difference between the current supply of workers and the projected demand, a "skills gap" exists. In cases where there is a skills gap, there are possibilities for cross training to fill the growing demand in these occupations.

Schools and training providers can play an important role in determining what classes and programs to offer to meet the growing need for these skills. One of the difficulties is that there is no clear linkage between skills and training requirements[2]. Also, new occupations that may emerge take time before they are identified and assigned a SOC code that would enable the identification of the related knowledge, skills, and activities[3].

Information on skills is also useful in the area of career exploration for students, workers, and career changers. Matching skills that are projected to be in demand with a job seeker's interests can be a first step in the career exploration process. Job changers can focus on their marketable skills as they look for a new position. Students can see what skills they need to concentrate on and develop to be more competitive in the job market.

Differences between long-term and short-term projections

There are subtle differences in the skills expected to be in demand in the short-term compared to the long term. Long-term projections are influenced by structural changes in industries and occupations that may take years to show up in employment totals. Short-

term projections on the other hand, are affected by cyclical changes. The "business cycle" consits of successive periods of business growth and contraction. Another difference is that long-term projections are based on an annual average employment while short-term projections use a quarterly average. Depending on the quarter, employment can vary considerably in some industries. One prominent example is Retail trade, in which employment tends to peak in the fourth quarter.

Projected Occupational Employment

For the two-year period ending 2007Q4, total employment is projected to increase at an annual rate of 1.2 percent. That is somewhat lower than the annual growth rate of 1.6 percent projected for 2004-2014 in an ELMIB publication released in July 2006. Employment is projected to increase from 693,603 to 710,349 between 2005Q4 and 2007Q4.

Slower growth in Construction and manufacturing are the primary reasons for the lower expectations, but even some of the faster-growing industries, such as Health care and social assistance will see slower growth relative to long-term projections.

Detailed information on short-term projections for the 2005Q4-2007Q4 period can be found at the ELMI web site at: *www.nhes.state.nh.us/elmi/projections*

Highlights of short-term projections 2005Q4 to 2007Q4

► Slower growth in the Construction sector and continued declines in Manufacturing will combine to make goods producing industries a drag on total employment growth. Service providing industries will contribute to growth.

► Manufacturing industries with more than a hundred fewer jobs during the projection period: Textile mills, Paper manufacturing, Printing and related support activities, and Computer and electronic product manufacturing.

► Retail trade employment tends to peak during the fourth quarter. The only projected decline is in Furniture and home furnishings stores, but the decline will be minimal.

New Hampshire
Short-term Occupational Projections - 2005Q4 to 2007Q4
Fastest-growing Occupations (at least 250 in base quarter)

SOC Code	SOC Title	2005Q4 Employment	2007Q4 Projected	Ave. Annual Change	Ave. Annual Growth	% Change	Annual Openings Growth	Annual Openings Replacement	Total	Training/Education Title
13-2052	Personal Financial Advisors	916	1,020	104	5.5%	11.4%	52	11	63	Bachelor's degree
43-4011	Brokerage Clerks	285	313	28	4.8%	9.8%	14	4	18	Moderate-term on-the-job training
41-3031	Securities, Commodities, and Financial Services Sales Agents	2,489	2,717	228	4.5%	9.2%	114	25	139	Bachelor's degree
15-1081	Network Systems and Data Communications Analysts	748	816	68	4.4%	9.1%	34	8	42	Bachelor's degree
15-1031	Computer Software Engineers, Applications	3,694	3,989	295	3.9%	8.0%	148	30	178	Bachelor's degree
25-3021	Self-Enrichment Education Teachers	1,025	1,103	78	3.7%	7.6%	39	11	50	Work experience in a related occupation
31-1011	Home Health Aides	1,964	2,106	142	3.6%	7.2%	71	24	95	Short-term on-the-job training
25-1121	Art, Drama, and Music Teachers, Postsecondary	297	318	21	3.5%	7.1%	11	7	18	Master's degree
29-2052	Pharmacy Technicians	1,140	1,220	80	3.4%	7.0%	40	14	54	Moderate-term on-the-job training
15-1061	Database Administrators	531	567	36	3.3%	6.8%	18	5	23	Bachelor's degree
29-2056	Veterinary Technologists and Technicians	532	568	36	3.3%	6.8%	18	6	24	Associate degree
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary	1,346	1,433	87	3.2%	6.5%	44	29	73	Bachelor's degree
29-1126	Respiratory Therapists	390	415	25	3.2%	6.4%	13	13	26	Associate degree
31-9092	Medical Assistants	1,083	1,152	69	3.1%	6.4%	35	20	55	Moderate-term on-the-job training
29-1071	Physician Assistants	301	320	19	3.1%	6.3%	10	4	14	Bachelor's degree
29-2055	Surgical Technologists	304	323	19	3.1%	6.3%	10	4	14	Postsecondary vocational training
29-1111	Registered Nurses	12,290	13,054	764	3.1%	6.2%	382	228	610	Associate degree
39-3031	Ushers, Lobby Attendants, and Ticket Takers	442	469	27	3.0%	6.1%	14	38	52	Short-term on-the-job training
31-2021	Physical Therapist Assistants	297	315	18	3.0%	6.1%	9	5	14	Associate degree
25-2042	Special Education Teachers, Middle School	547	580	33	3.0%	6.0%	17	12	29	Bachelor's degree

► Some relatively small industries are difficult to project, especially where there may be seasonal effects that could be magnified by weather or other unpredictable conditions. Scenic and sightseeing transportation is an example.

► For occupations with base period employment of at least 500, the fastest growing occupations are projected to be Personal financial advisors (5.7 percent), Securities, commodities, and financial services agents (4.6 percent), and Network systems and data communications analysts (4.6 percent).

► Healthcare occupations which are expected to grow better than average include Home health aides (3.6 percent), Pharmacy technicians (3.4 percent), and Medical assistants (3.1 percent).

► In the short-term, a decrease is expected in the Construction sector, which means that related occupations will experience a temporary slowing of growth, while some occupations may even decline. This is expected to be temporary, as long-term trends point to growth in these occupations.

Unemployment Compensation Claims Activity

Claims Activity

Total Regular Unemployment Compensation Programs:				Change from Previous			
				Month		Year	
	Nov-06	Oct-06	Nov-05	Net	Percent	Net	Percent
Initial Claims	4,265	3,576	3,447	689	19.3%	818	23.7%
Continued Weeks	23,201	24,020	21,150	-819	-3.4%	2,051	9.7%

Unemployment Compensation Fund

Trust Fund

Unemployment compensation fund balance at the end of November	$266,950,248.05
Average payment for a week of total unemployment:	$262.53
Net benefits paid:	$4,651,656.13
Net contributions received during the month:	$4,534,092.35
Interest Received:	$0.00
Reed Act Distribution:	$0.00
Reed Act Withdrawn for Benefits:	$3,566.00
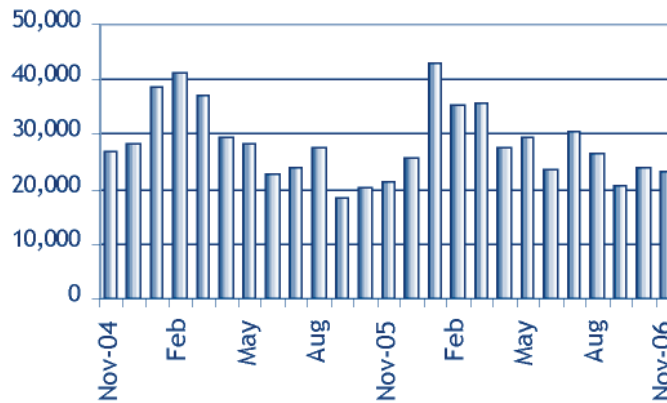
Continued Weeks Claimed

Nov 2004 - Nov 2006

Continued weeks claimed showed some promise as they dropped over 800 from October's level.

			Change from Previous		
Nov-06	Oct-06	Nov-05	Month	Year
201.5	201.8	197.6	-0.1%	2.0%

United States
All Urban Areas (CPI-U)
(1982-1984=100)

Consumer Price Index

► Occupations adding the most jobs over the two-year projection period include Retail salespersons; Registered nurses; and Combined food preparation and serving workers, including fast food.

► Occupations with the most total openings, both growth and replacement, include Retail salespersons, Cashiers, and Waiters and waitresses.

► Some occupations are expected to decline during the two-year projection period:

* Mail clerks and mail machine operators, excluding Postal Service

* Production workers, all other

* Order clerks

* File clerks

* Secretaries, except legal, medical, and executive

Michael Argiropolis

Footnotes

[1] "Looking Forward." November 2006. Economic and Labor Market Information Bureau. New Hampshire Employment Security.

[2] "Forecasting Short-term Demand for Skills". Winter 2002. Minnesota Department of Economic Security.

[3] Ibid.

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