

***Health Care Employment Projections:***

***An Analysis of***

***Bureau of Labor Statistics Occupational Projections,***

***2000-2010***

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## Background

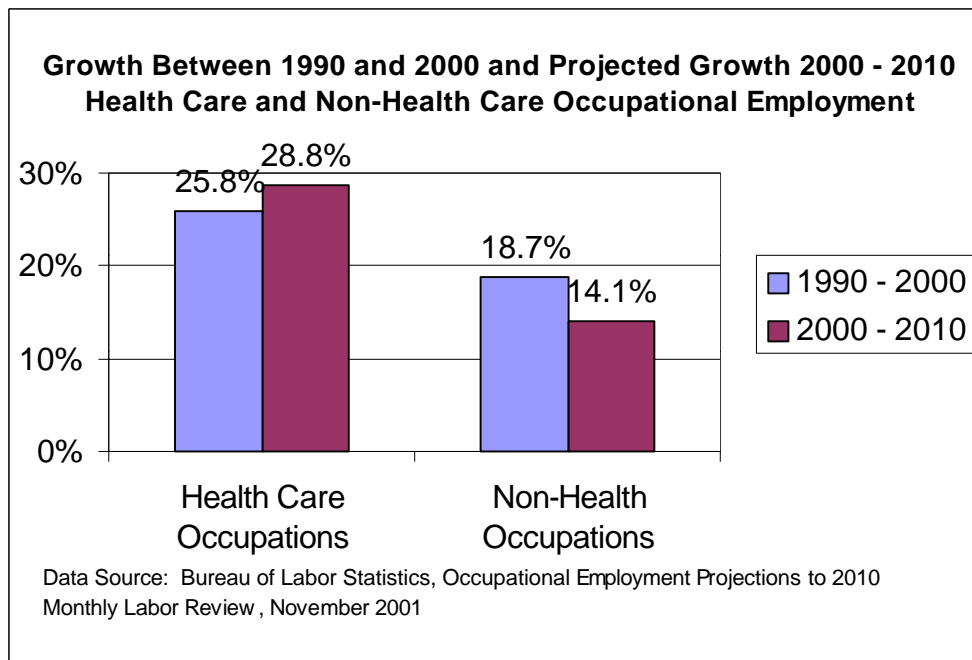
Every two years the federal Bureau of Labor Statistics (BLS) publishes occupational projections for employment in the United States for the coming decade. In late 2001, BLS published its projections by occupation for the period 2000 through 2010<sup>1</sup>. The Center for Health Workforce Studies at the School of Public Health, University at Albany analyzed these projections and summarized the most significant findings related to health occupations. These findings are presented below.

The BLS data on occupational projections includes over 700 occupations. This report presents information on the 68 occupations that the Center considers health-oriented. Since the BLS report on occupational projections does not break out the occupations by industry, the Center's analysis does *not* cover non-health occupations in health facilities, such as food service workers in hospitals. Approximately four million workers in non-health occupations were employed in health facilities in 2000; these workers are not included in the numbers presented below.

## KEY FINDINGS

- **Employment in health occupations is projected to grow from 10.9 million in 2000 to over 14 million in 2010 (Table 1). The rate of growth of new jobs in health care occupations is projected to be 28.8%, more than twice the rate of employment growth projected for non-health occupations. The sharp growth predicted for the current decade is slightly higher than the actual growth in the prior decade. (Figure 1)**

Figure 1

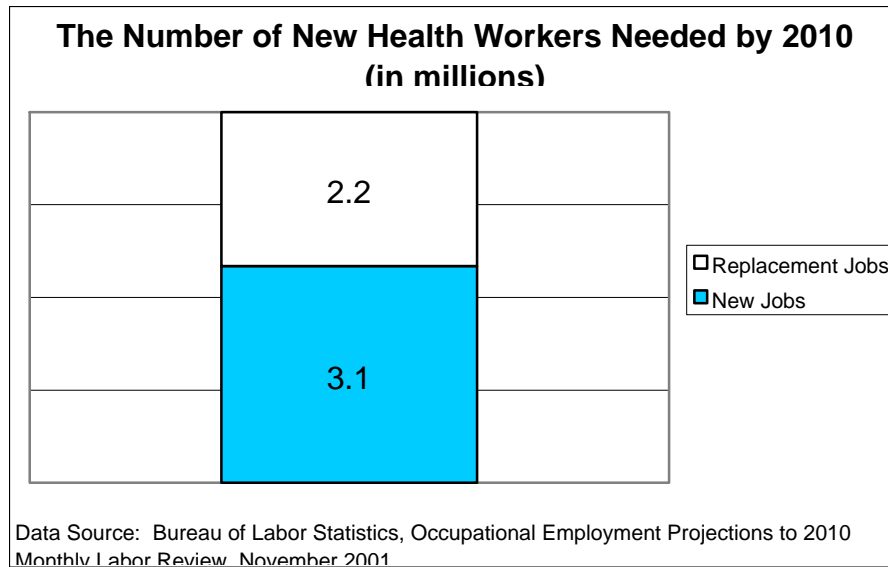


<sup>1</sup> Daniel Hecker, Occupational Employment Projections to 2010, Monthly Labor Review, Bureau of Labor Statistics, November 2001.

- **More than 5.3 million health workers will be needed to fill the job openings created by departures and increases in new positions in health occupations between 2000 and 2010.**

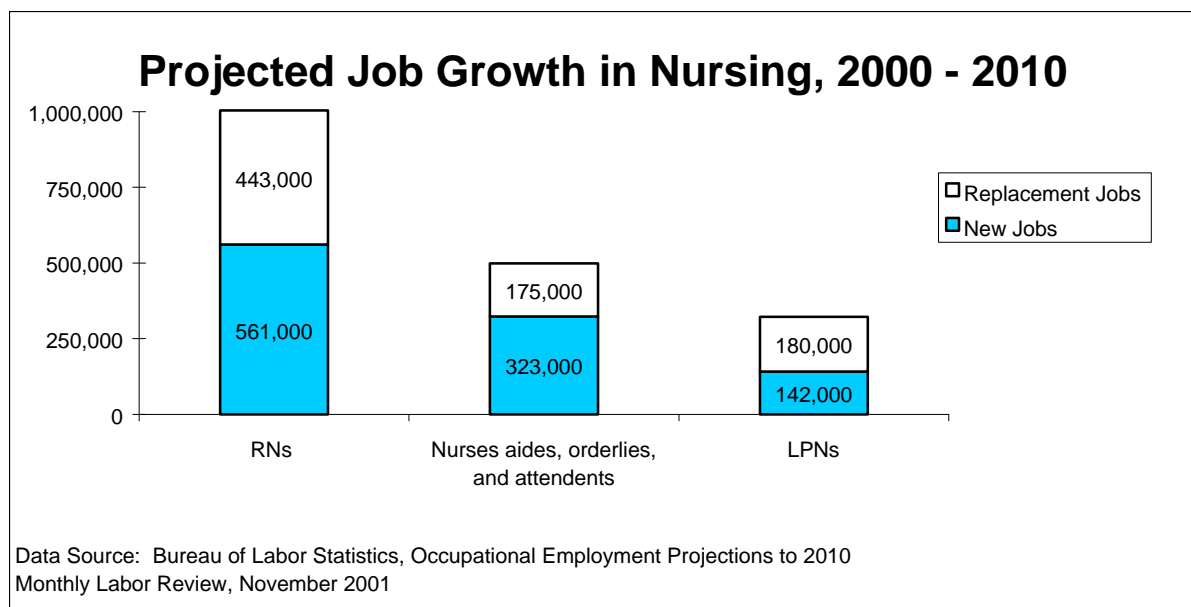
The BLS predicts that the number of jobs in health occupations will increase by more than 3.1 million between 2000 and 2010. In addition, 2.2 million more new health workers will be needed to replace individuals that are expected to leave their positions over that time period.

**Figure 2**



- **All levels of nursing are expected to grow quickly and substantially. Job growth for RNs, LPNs and nurse aides/orderlies and attendants is projected to be more than 1 million jobs. Total job openings in the three occupations are predicted to total more than 1.8 million.**

**Figure 3**



- **Health occupations are predicted to be 15 of the 30 fastest growing occupations in America (Table 2).**

The ten fastest growing health occupations<sup>2</sup> are projected to be:

- personal and home care aides (62%);
  - medical assistants (57%);
  - physician assistants (53%);
  - medical records and health information technicians (49%);
  - home health aides (47%);
  - physical therapy aides (46%);
  - occupational therapist aides (45%);
  - physical therapy assistants (45%); and
  - audiologists (45%).
- **Health occupations are predicted to represent 5 of the 30 occupations with the largest job growth between 2000 and 2010. The majority of the job growth is in low paying direct care health occupations (Table 3).**

The five health occupations<sup>2</sup> with the largest number of new jobs are:

- registered nurses (561,000 new jobs);
  - nurse aides, orderlies and attendants (323,000);
  - home health aides (291,000);
  - personal and home care aides (258,000); and
  - medical assistants (187,000).
- **Jobs for individuals providing services in the home are expected to grow rapidly and significantly. Home health aides and personal and home care aides are both in the fastest growing occupations (Table 2) and in the occupations with the largest growth (Table 3). There will be nearly 700,000 job openings in these two occupations between 2000 and 2010.**
  - **Of the 68 health occupations included in this analysis only 10 are growing less rapidly than the overall U.S. economy.**

The five health occupations with the slowest rate of job growth are:

- ophthalmic laboratory technicians (5.7%);
- dentists (5.7%);
- dental laboratory technicians (6.3%);
- psychiatric technicians (8.5%); and
- recreational therapists (8.6%).

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<sup>2</sup> Figures in parentheses represent the increase in *total* jobs in the occupation and does not include numbers needed to replace existing workers who will retire or leave their occupation for other reasons.

The BLS projections are for the nation as a whole. While the forces influencing the growth in demand for health services in New York State are likely to be similar to rest of the nation, the experience in New York may not be the same as the nation.

In addition, it is very difficult to accurately predict health care employment due to the many factors that influence demand and use of services that are difficult to anticipate, such as the nation's economy and reimbursement policies. Nevertheless, the BLS projections represent the most thorough and comprehensive forecast of future jobs in America.

**Table 1: Employment by Health Occupations in the United States, BLS, 2000 and Projected 2010, Ranked by Total Job Openings**

[ Numbers in thousands of jobs]

Occupation	Employment		Change		Total job openings due to growth and net replacements, 2000-10
	Number		Number	Percent	
	2000	2010			
Registered nurses	2,194	2,755	561	25.6	1,004
Nursing aides, orderlies, and attendants	1,373	1,697	323	23.5	498
Home health aides	615	907	291	47.3	370
Personal and home care aides	414	672	258	62.5	322
Licensed practical and licensed vocational nurses	700	842	142	20.3	322
Medical assistants	329	516	187	57.0	274
Physicians & surgeons	598	705	107	17.9	196
Dental assistants	247	339	92	37.2	136
Medical and health services managers	250	330	81	32.3	123
Pharmacy technicians	190	259	69	36.4	118
Pharmacists	217	270	53	24.3	118
Medical secretaries	314	373	60	19.0	113
Medical records and health information technicians	136	202	66	49.0	97
Emergency medical technicians and paramedics	172	226	54	31.3	97
Physical therapists	132	176	44	33.3	77
Dental hygienists	147	201	54	37.1	76
Radiologic technologists and technicians	167	206	39	23.1	75
Psychologists	182	214	33	18.1	75
Medical and clinical laboratory technicians	147	175	28	19.0	62
Medical and clinical laboratory technologists	148	174	25	17.0	60
Speech-language pathologists	88	122	34	39.2	57
Medical transcriptionists	102	132	30	29.8	57
Respiratory therapists	83	112	29	34.8	50
Rehabilitation counselors	110	136	26	23.6	49
Occupational therapists	78	105	27	33.9	46
Medical and public health social workers	104	136	33	31.6	44
Physician assistants	58	89	31	53.5	43
Surgical technologists	71	96	25	34.7	43
Dentists	152	161	9	5.7	43
Mental health and substance abuse social workers	83	116	33	39.1	42
Environmental scientists & specialists, including health	64	78	14	22.3	35
Substance abuse & behavioral disorder counselors	61	82	21	35.0	34
Physical therapist assistants	44	64	20	44.8	33
Mental health counselors	67	82	15	21.7	28
Physical therapist aides	36	53	17	46.3	27
Pharmacy aides	57	68	11	19.5	26
Opticians, dispensing	68	81	13	19.0	25
Environmental engineers	52	66	14	26.0	24

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[ Numbers in thousands of jobs]

Occupation	Employment		Change		Total job openings due to growth and net replacements, 2000-10
	Number		Number	Percent	
	2000	2010			
Cardiovascular technologists and technicians	39	52	14	34.9	22
Chiropractors	50	62	12	23.4	21
Dietitians & nutritionists	49	58	7	15.2	21
Psychiatric technicians	54	59	5	8.5	19
Massage therapists	34	45	10	30.4	18
Environmental science & protection technicians, including health	27	34	7	24.5	17
Health educators	43	53	10	23.5	17
Psychiatric aides	65	73	9	13.2	17
Respiratory therapy technicians	27	36	9	34.6	16
Diagnostic medical sonographers	33	41	9	26.1	16
Medical equipment preparers	33	39	6	18.2	15
Dietetic technicians	26	33	7	27.6	14
Occupational health & safety specialists and technicians	35	40	5	15.0	14
Dental laboratory technicians	43	46	3	6.3	14
Optometrists	31	37	6	18.7	12
Health & safety engineers, except mining safety engineers and inspectors	44	49	5	10.9	12
Occupational therapist assistants	17	23	7	39.7	11
Marriage and family therapists	21	27	6	29.9	11
Ophthalmic laboratory technicians	32	34	2	5.7	11
Recreational therapists	29	32	2	8.6	10
Audiologists	13	19	6	44.7	9
Environmental engineering technicians	18	24	5	29.1	9
Nuclear medicine technologists	18	22	4	22.4	8
Radiation therapists	16	19	4	22.8	7
Occupational therapist aides	9	12	4	45.2	6
Medical appliance technicians	13	15	2	19.0	6
Athletic trainers	15	17	3	18.5	6
Podiatrists	18	20	3	14.2	6
Forensic science technicians	6	7	1	13.0	3
Orthotists and prosthetists	5	6	1	17.3	2
<b>Total, all Health Occupations</b>	<b>10,913</b>	<b>14,052</b>	<b>3,143</b>	<b>28.8</b>	<b>5,289</b>

**Table 2: Thirty Fastest Growing Occupations, 2000-2010**

[Numbers in thousands of jobs] (Health occupations in bold)

Occupation	Employment		Change		Quartile rank by 2000 median annual earnings <sup>1</sup>	Most significant source of education or training
	2000	2010	Number	Percent		
Computer software engineers, applications	380	760	380	100	1	Bachelor's degree
Computer support specialists	506	996	490	97	2	Associate degree
Computer software engineers, systems software	317	601	284	90	1	Bachelor's degree
Network and computer systems administrators	229	416	187	82	1	Bachelor's degree
Network systems and data communications analysts	119	211	92	77	1	Bachelor's degree
Desktop publishers	38	63	25	67	2	Postsecondary vocational award
Database administrators	106	176	70	66	1	Bachelor's degree
<b>Personal and home care aides</b>	414	672	258	62	4	Short-term on-the-job training
Computer systems analysts	431	689	258	60	1	Bachelor's degree
<b>Medical assistants</b>	329	516	187	57	3	Moderate-term on-the-job training
Social and human service assistants	271	418	147	54	3	Moderate-term on-the-job training
<b>Physician assistants</b>	58	89	31	53	1	Bachelor's degree
<b>Medical records and health information technicians</b>	136	202	66	49	3	Associate degree
Computer and information systems managers	313	463	150	48	1	Bachelor's or higher degree, plus work experience
<b>Home health aides</b>	615	907	291	47	4	Short-term on-the-job training
<b>Physical therapist aides</b>	36	53	17	46	3	Short-term on-the-job training
<b>Occupational therapist aides</b>	9	12	4	45	3	Short-term on-the-job training
<b>Physical therapist assistants</b>	44	64	20	45	2	Associate degree
<b>Audiologists</b>	13	19	6	45	1	Master's degree
Fitness trainers and aerobics instructors	158	222	64	40	3	Postsecondary vocational award
Computer and information scientists, research	28	39	11	40	1	Doctoral degree
Veterinary assistants and laboratory animal caretakers	55	77	22	40	4	Short-term on-the-job training
<b>Occupational therapist assistants</b>	17	23	7	40	2	Associate degree
Veterinary technologists and technicians	49	69	19	39	3	Associate degree
<b>Speech-language pathologists</b>	88	122	34	39	1	Master's degree
<b>Mental health and substance abuse social workers</b>	83	116	33	39	2	Master's degree
<b>Dental assistants</b>	247	339	92	37	2	Moderate-term on-the-job training
<b>Dental hygienists</b>	147	201	54	37	1	Associate degree
Special education teachers, preschool, kindergarten, and elementary school	234	320	86	37	1	Bachelor's degree
<b>Pharmacy technicians</b>	190	259	69	36	3	Moderate-term on-the-job training

<sup>1</sup>The quartile rankings of Occupational Employment Statistics annual earnings data are presented in the following categories: 1=very high (\$39,700 and over), 2=high (\$25,760 to \$39,660), 3=low (\$18,500 to \$25,760), and 4=very low (up to \$18,490). The rankings were based on quartiles using one-fourth of total employment to define each quartile. Earnings are for wage and salary workers.



**Table 3: Occupations with the Largest Job Growth, 2000-2010**

[Numbers in thousands of jobs] (Health occupations in bold)

Occupation	Employment		Change		Quartile rank by 2000 median annual earnings <sup>1</sup>	Most significant source of education or training
	2000	2010	Number	Percent		
Combined food preparation and serving workers, including fast food	2,206	2,879	673	30	4	Short-term on-the-job training
Customer service representatives	1,946	2,577	631	32	3	Moderate-term on-the-job training
<b>Registered nurses</b>	2,194	2,755	561	26	1	Associate degree
Retail salespersons	4,109	4,619	510	12	4	Short-term on-the-job training
Computer support specialists	506	996	490	97	2	Associate degree
Cashiers, except gaming	3,325	3,799	474	14	4	Short-term on-the-job training
Office clerks, general	2,705	3,135	430	16	3	Short-term on-the-job training
Security guards	1,106	1,497	391	35	4	Short-term on-the-job training
Computer software engineers, applications	380	760	380	100	1	Bachelor's degree
Waiters and waitresses	1,983	2,347	364	18	4	Short-term on-the-job training
General and operations managers	2,398	2,761	363	15	1	Bachelor's or higher degree, plus work experience
Truck drivers, heavy and tractor-trailer	1,749	2,095	346	20	2	Moderate-term on-the-job training
<b>Nursing aides, orderlies, and attendants</b>	1,373	1,697	323	24	3	Short-term on-the-job training
Janitors and cleaners, except maids and housekeeping cleaners	2,348	2,665	317	13	4	Short-term on-the-job training
Postsecondary teachers	1,344	1,659	315	23	1	Doctoral degree
Teacher assistants	1,262	1,562	301	24	4	Short-term on-the-job training
<b>Home health aides</b>	615	907	291	47	4	Short-term on-the-job training
Laborers and freight, stock, and material movers, hand	2,084	2,373	289	14	3	Short-term on-the-job training
Computer software engineers, systems software	317	601	284	90	1	Bachelor's degree
Landscaping and groundskeeping workers	894	1,154	260	29	4	Short-term on-the-job training
<b>Personal and home care aides</b>	414	672	258	62	4	Short-term on-the-job training
Computer systems analysts	431	689	258	60	1	Bachelor's degree
Receptionists and information clerks	1,078	1,334	256	24	3	Short-term on-the-job training
Truck drivers, light or delivery services	1,117	1,331	215	19	3	Short-term on-the-job training
Packers and packagers, hand	1,091	1,300	210	19	4	Short-term on-the-job training
Elementary school teachers, except special education	1,532	1,734	202	13	1	Bachelor's degree
<b>Medical assistants</b>	329	516	187	57	3	Moderate-term on-the-job training
Network and computer systems administrators	229	416	187	82	1	Bachelor's degree
Secondary school teachers, except special and vocational education	1,004	1,190	187	19	1	Bachelor's degree
Accountants and auditors	976	1,157	181	19	1	Bachelor's degree

<sup>1</sup>The quartile rankings of Occupational Employment Statistics annual earnings data are presented in the following categories: 1=very high (\$39,700 and over), 2=high (\$25,760 to \$39,660), 3=low (\$18,500 to \$25,760), and 4=very low (up to \$18,490). The rankings were based on quartiles using one-fourth of total employment to define each quartile. Earnings are for wage and salary workers.