

THE CHANGING FACE OF THE HEALTH CARE INDUSTRY – Attachment C

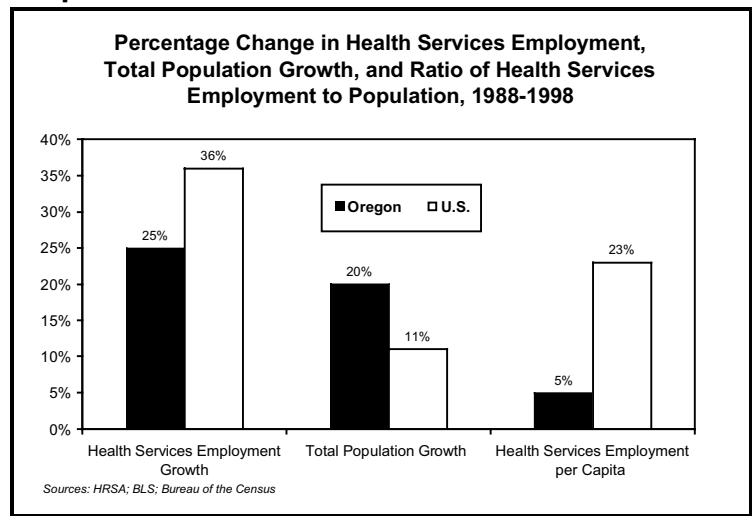
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Introduction

Health care careers are still the rising stars of the employment outlook. The Bureau of Labor Statistics recently estimated that 12 out of the 30 occupations projected to grow the fastest will be in health services. The health care industry and health care workers encompass a wide range of labor markets, employment settings, skill levels, and job requirements. This industry is one of the largest in the country, contributes to about 11.3 million jobs, makes up more than 460,000 establishments, and is projected to expand to 12.7 million jobs in 2008. The health services work force – health care professionals and others working in health care facilities – represented more than 10.5 percent of all American workers in 1998. During this same year, Oregon's health services employment represented 7.3 percent of the state's total work force, or 113,300 jobs, and this work force was employed in 5,784 health service establishments statewide.

The health care system in the United States is both large and complex. Its success is dependent on adequate numbers of qualified personnel. The people who deliver care are the health system's most important resource. This health services work force is large, with a wide variety of educational backgrounds, specialization, and skills. Between 1988 and 1998, Oregon's health services employment grew 25 percent while the state's population grew by 20 percent (Graph 1). This resulted in a meager five percent per capita growth in health-services employment that was significantly lower than the national rate of 23 percent.

Graph 1

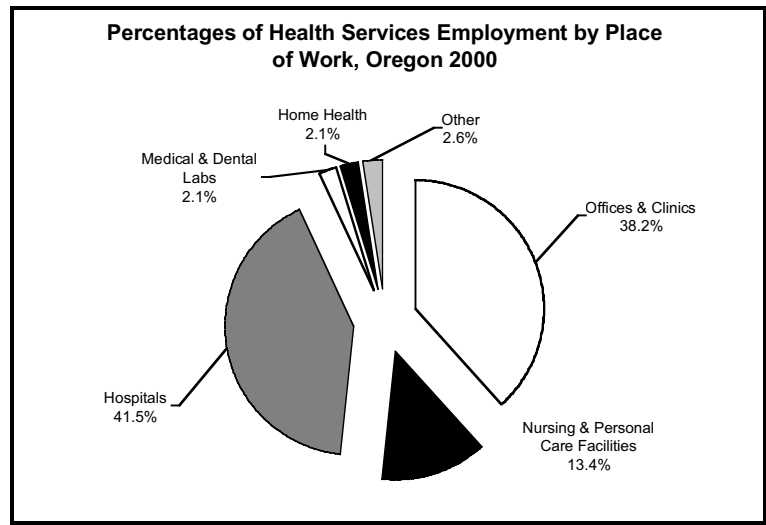


Health services can be viewed from two perspectives: by industry and by occupation. This report will look at health services from both perspectives to provide a wide window into the ever-changing face of the health care industry. Along with recent health industry and occupational trends, it will look at specific demographic trends to show how they may be contributing to the changes in the supply and demand of health care professionals. Any additional factors that may be affecting the health services industry (e.g., health insurance coverage, Medicare/Medicaid, and managed care) will not be

addressed in this report due to the complexity of these issues and the constraints on the length of this report.

Industry Trends

The industry data for health services employment by place of work are based on the Standard Industrial Classification (SIC) system and cover five broad types of health care settings: offices and clinics of doctors and other health practitioners (SIC 801-804), nursing and personal care facilities (SIC 805), hospitals (SIC 806), medical and dental laboratories (SIC 807), home health care services (SIC 808), and miscellaneous health and allied services (SIC 809).



Graph 2

According to the Department of Health and Human Services, more U.S. workers were employed in hospitals in 1998 than any other place of work. During the year 2000, Oregon’s hospital employment contributed to 48,000 jobs, or 41.5 percent of the state’s health care work force (Graph 2). Offices and clinics of health practitioners ran a close second at 38.2 percent. Nursing and personal care facilities employed the third largest number at 13.4 percent.

How has Oregon’s largest health care setting (hospitals) compared nationally? The latest comparative statistics show that Oregon’s hospital employment, bed availability, and nursing home employment significantly lagged behind nationwide levels in 1998 (Table 1). The state had a significantly lower count of hospital beds at 207 beds per 100,000 population than the national average of 311 beds. The state also significantly

Table 1

Hospital and Nursing Care Facility Statistics, 1998		
	Oregon	U.S.
Hospital Beds per 100,000 Population	207	311
Hospital Employment	45,952	4,975,273
Hospital Employment per 100,000 Population	1,400	1,841
Nursing Home Beds per 1,000 Population Age 65+	32.5	52.7

Source: Dept. of Health & Human Services, HRSA

lagged behind in the number of nursing home beds at 32.5 per 1,000 population age 65 and older compared to the national average of 52.7 beds. Overall, Oregon ranked a low 42nd among the states in per capita health services employment in 1998.

Rising Industry Demand for Workers

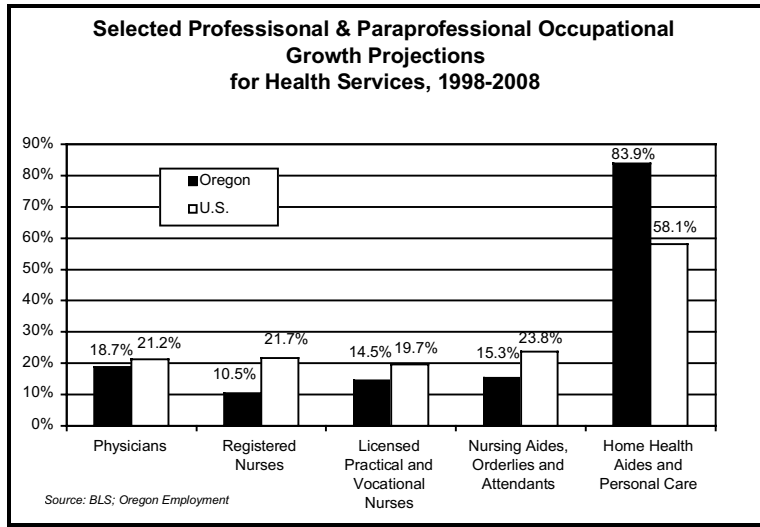
Throughout the 1990s, concern over containing escalating health care costs transformed the health services industry. Many hospitals went through downsizing and restructuring and, consequently, the number of nurses and other health personnel dropped. Since 1998, many downsized positions have been restored and new positions added as a result of increasing demand. Government policy can also contribute to changes in the supply of health care professionals. In 1994, a government decision to cut physician training programs by 50 percent resulted in a steady decrease in the supply of physicians during the mid-1990s. The nation is now seeing an increased demand for physicians, especially for those who specialize. The increasing patient loads and greater patient acuity (sicker patients) is also increasing the demand for patient care. Hospitals are seeing greater numbers of chronically ill persons partly due to the declining length of stay, increased outpatient treatment, and the use of new technology that allows rapid assessment, treatment, and discharge. According to a recent American Hospital Survey of some 700 hospitals nationwide, facilities are struggling to fill more than 168,000 vacancies, including 126,000 nursing slots. Along with nursing vacancies, the survey identified pharmacist vacancy rates of 21 percent, radiology technician vacancy rates of 18 percent, and lab technician vacancy rates of 12 percent.

Even though hospital employment is predicted to increase overall, it is expected to be the slowest growing industry in health services, according to the Bureau of Labor Statistics. As clinics and other alternative care sites become more common, hospitals will provide more outpatient care, will rely less on inpatient care, and will streamline their health care delivery operations. The predicted rapid growth in other health services segments can be attributed to the aging population, new medical technologies, and the increase in demand for all types of health services. The fastest occupational growth is expected in occupations concentrated outside the inpatient hospital sector, such as medical assistants and home health aides. The Department of Labor estimates that by the year 2008, the U.S. will require over two million additional medical workers. The Oregon Employment Department's recent employment projections by industry show an increase of approximately 15,300 jobs in Oregon's health services industry between 2000 and 2010.

Occupational Trends

Health professional and paraprofessional occupations make up the majority of the health care industry. According to the Bureau of Labor Statistics, in 1998 these two broad occupations made up nearly three out of five jobs in health care. The next largest

share of jobs was in administrative support, followed by technicians and related support occupations. The executive, administrative, and managerial occupations accounted for only six percent of health industry employment. The most numerous occupations within the health professional and paraprofessional segment include registered nurses, nursing aides, licensed practical and licensed vocational nurses, physicians, and home health aides. Oregon's job growth projections for these health care professionals are comparatively lower than the U.S. projections, with the exception of home health aides, where Oregon's jobs are expected to grow by almost 84 percent versus a 58 percent growth rate nationwide (*Graph 3*). The most current projections from the Oregon Employment Department indicate that Oregon's overall health services employment will grow from 91,200 jobs in 2000 to approximately 107,000 jobs in 2010, a 17 percent increase in health industry employment versus a 12.5 percent increase in all employment growth.

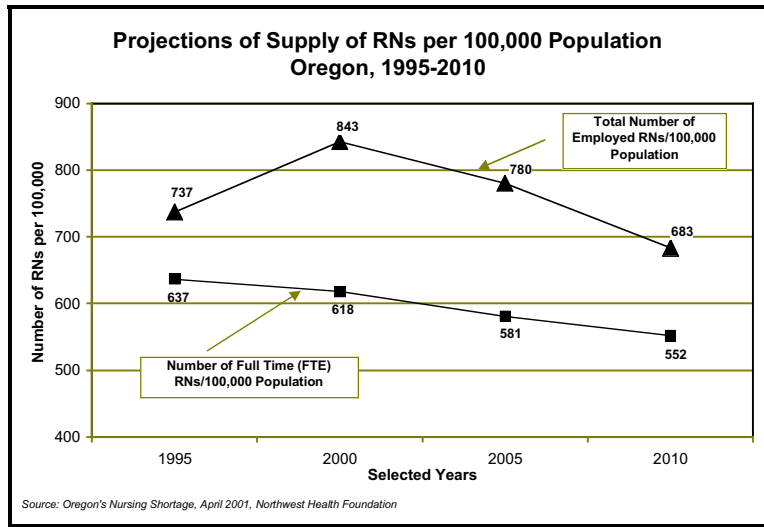


Graph 3

The Registered Nursing Work Force

The registered nursing (RN) work force represents the largest group of health care professionals in the United States and is currently estimated at over 2.2 million professionals. In general, nurses comprise up to three-fourths of a hospital's work force and account for two-thirds of its labor cost (excluding physicians). In nursing homes and home health agencies, the percentage of nursing personnel is even larger (*Oregon's Nursing Shortage*, Northwest Health Foundation). There are three major educational paths to nursing: Associate degree in nursing, Bachelor of Science degree, and diploma. Associate degrees are offered by community and junior colleges and take about two years to complete. About half of all registered nursing programs in 1998 were at the associate level. Bachelor of Science degrees are offered by colleges and universities and take four or five years to complete. Diploma programs, given in hospitals, last two to three years and comprise only about four percent of nurse training programs. In all states, students must graduate from a nursing program and pass a national licensing examination to obtain a nursing license.

The American Health Care Association predicts that within two decades there will be a 14 percent shortage of nurses around the country. Others estimate that by the year 2020 the work force of RNs is projected to be the same size it is today, falling close to 20 percent below projected work force requirements (Buerhaus et al, 2000). According to the Health Resources and Services Administration (HRSA), a large portion of this nursing work force is aging. Nationally, HRSA estimates that about 65 percent of nurses are between the ages of 30 and 45, twenty percent are between the ages of 50 and 64, and about 10 percent are under 30 years. In 2000, the average age of a RN was 44 years and it is estimated that 40 percent of working



Graph 4

RNs will be over the age of 50 by year 2010. Statistics on Oregon's RN work force generally match national trends. In year 2000, 38 percent of Oregon's RN work force were over the age of 50, another 22 percent were between the ages of 45 and 50 years, and the average age was 47 years. With the aging of this work force, the potential for significant retirements over the next ten years is realistic. If this occurs, it could significantly impact the supply of future nurses. According to the Oregon Nursing Leadership Council's national and statewide studies, the nursing work force is projected to have significant shortages by year 2010. By 2020, the RN work force could be roughly the same size it is today, falling almost 20 percent below projected nursing requirements. State projections (*Graph 4*) show that this could mean a decrease from the estimated 618 full-time equivalent RNs/100,000 population in year 2000, to 581 RNs/100,000 in year 2005, and to 552 RNs/100,000 in year 2010.

Along with the aging work force, job dissatisfaction could also take its toll on the future supply of nurses. A recent national survey carried out by the Federation of Nurses and Health Professionals found that one in five nurses plan to leave the profession within five years because of perceived unsatisfactory working conditions. Of the nurses who planned to leave, 75 percent said they could be persuaded to stay if improvements such as better staffing levels, more flexible schedules, and higher salaries were made.

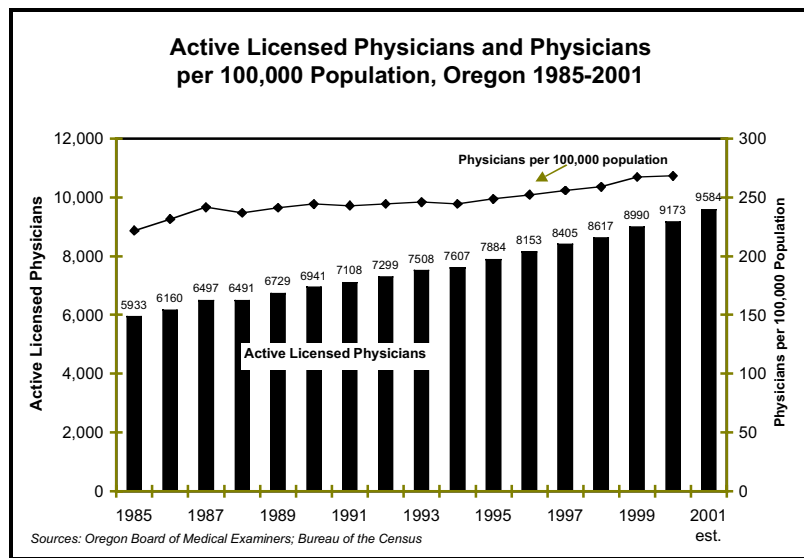
The supply of nurses is also being affected by changes in school enrollment patterns. Nationally, nursing school enrollment is decreasing and migration from nursing careers is increasing. Over the past 25 years, there has been a tremendous expansion in career opportunities for women outside the field of nursing, and a decline in interest by women in nursing careers. According to the American Association of Colleges of

Nursing, 1999's entry-level nursing school enrollment fell by 4.6 percent, the fifth year of decline in a row. Recent figures from the National Council of State Boards of Nursing show a 16 percent decline in the number of new nursing licensees over the last two years. In contrast, Oregon' nursing school enrollments have not followed the national trend but have remained relatively stable. Even though school enrollments have not declined in Oregon, they have not kept up with the state's population growth. Any increase in per capita RN work force can almost entirely be accounted for by migration of RNs into the state or licensed nurses returning to the work force.

The Physician Work Force

Physicians are defined as doctors of medicine who diagnose and treat mental or physical disorders. They may specialize in one field such as surgery, obstetrics, gynecology, or psychiatry. The educational requirements for becoming a physician consist of four years undergraduate school, four years medical school, and a three to eight year internship and residency, depending on the specialty selected. In 2000, there were approximately 700,000 physicians licensed to practice in the U.S. with 8,063 licensed physicians in Oregon. As the general population ages, the physician population is aging as well. The American Medical Association estimates that 38 percent of the 700,000 physicians in the country are 50 or older and, according to their recent study, half of these physicians will opt for early retirement.

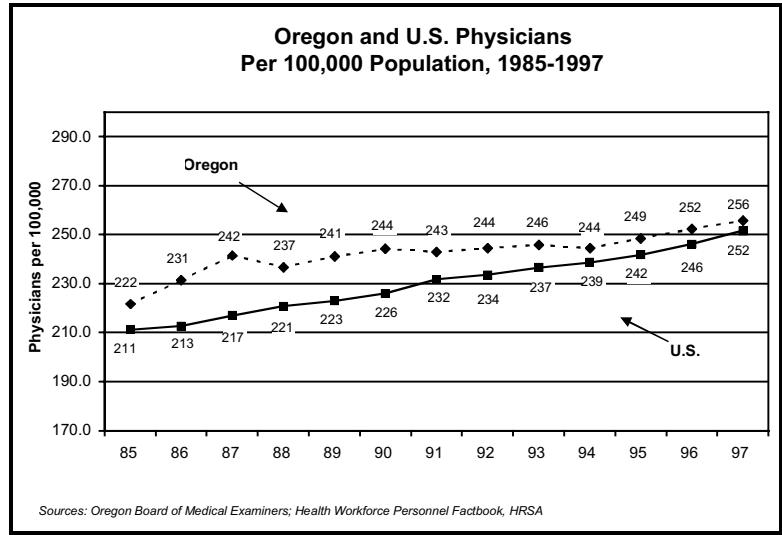
The question of whether this country has a physician shortage depends on with whom you speak and where they live. A University of California study released this year reported no physician shortages in the state and explained that complaints were more about the unsatisfactory distribution and utilization of physicians than about shortages. As shown in Graph 5, the number of



Graph 5

As shown in Graph 5, the number of

physicians per 100,000 population in Oregon has been gradually increasing during the last 15 years, from 222 in 1985 to 268 in 2000. The state's physician ratios were higher than national averages, as depicted in Graph 6. The most recent data available shows that Oregon's physician ratios were ahead of national physician ratios for the years 1985-1997.



Graph 6

More agreement on physician shortages occurs when the focus centers on the area of medical specialty. According to a three-year study carried out by the *Committee on Manpower for Pulmonary and Critical Care Societies*, the nation may face a shortage of pulmonary and critical care physicians in less than a decade. These predicted shortages are attributed to a baby-boomer generation that could create a disease burden that would cause the demand for services to outstrip the supply of specialists. Another concern is with emergency physicians, who, according to the Emergency & Acute Care Medical Corporation, are now frequently in short supply in emergency departments throughout the country. Geriatric specialists will also be in high demand with the future population of Americans over 65 years increasing significantly. According to the Institute of Medicine, the number of geriatricians may actually fall by the end of the decade as many physicians with geriatrics training retire and few new physicians take their place.

Physician dissatisfaction could also contribute to future physician shortages. There seems to be a growing number of physicians who are dissatisfied with their profession or who are considering retirement. While a recent physician survey conducted by Oregon Health Sciences University found that 74 percent of the physicians polled were very satisfied or satisfied with their current practice, 12 percent of these physicians reported being dissatisfied or very dissatisfied with their practice. When physicians were asked if they were planning to make work-related changes within the next two years, 21 percent reported they expected a change. Out of the group that expected a change, 58 percent planned to reduce clinical hours, 28 percent planned to retire or change careers, and 14 percent planned to increase their clinical hours.

A recent Portland Metro survey points to even higher dissatisfaction levels among physicians. According to an interview carried out by the Institute of Portland Metropolitan Studies, Dr. Craig Walta, a Portland gastroenterologist and president of the Oregon Clinic, reported that, "The physician satisfaction surveys in Portland are terrifying. Compared to only five years ago, recent polls reveal that primary care

doctors are 62 percent less satisfied, medical specialists are 62 percent less satisfied, surgical specialists are 69 percent less satisfied, and Portland physicians overall are 60 percent less satisfied.” The dissatisfaction seems to center around the effects of decreased Medicare reimbursements, managed care, and increased government regulations that increase expenses without sufficient funding to offset these costs. Dr. Walta explained that, “While national competition for physicians is becoming intense, the average physician salary in Portland is 25 percent lower than the national average. This makes it difficult to recruit, especially with intense national competition for top quality physicians.”

Licensed Practical Nurses

Licensed practical nurses (LPNs) care for the sick, injured, convalescent, and disabled under the direction of physicians and registered nurses. All states require LPNs to pass a licensing examination after completing a state-approved practical nursing program that lasts about one year. LPNs held about 692,000 jobs nationally in 1998. Thirty-two percent of these health care providers worked in hospitals, 28 percent worked in nursing homes, 14 percent in doctor’s offices and clinics, and the remainder in home health and assorted services. Employment is expected to grow as fast as the average for all occupations (14 percent) through 2008 in response to the long-term care needs of an aging population and the general growth of health care.

Employment wage data show 2001 wages for LPNs in Oregon ranging from \$12.45 to \$19.45 per hour with an average of \$15.78. In 1998, Oregon ranked third lowest among the states in the per capita employment of licensed practical/vocational nurses, with 137.7 LPNs per 100,000 population as compared to the national rate of 249.3 per 100,000 population (*HRSA State Workforce Profiles, 2000*). According to the Oregon State Board of Nursing (OSBN), in 2000, there were 4,227 licensed practical nurses in Oregon and there has been a constant decline in LPN licenses since 1991 when 5,513 LPNs were licensed in the state. Like the RN work force, the LPN work force is aging and OSBN estimates that approximately eighty percent of the current state-licensed LPNs are over 40 years of age.

The Paraprofessional Work Force

Our health care system is becoming increasingly reliant on paraprofessional caregivers that include mainly certified nurse assistants, home health aides, and personal care attendants. These workers provide at least 70 percent of the health system’s direct-care services in hospitals, nursing homes, assisted-living facilities and other institutions. Nationwide, paraprofessionals total more than 2.1 million workers; 86 percent are women; 30 percent are non-white; and most are between the ages of 25 and 54 (*Recruiting Quality Health Care Paraprofessionals, Paraprofessional Healthcare Institute*). Over the next eight years, the paraprofessional work force is projected to be the nation’s seventh fastest growing occupation (*Direct-Care Health Workers, Paraprofessional Healthcare Institute*). At the bottom of the health-care hierarchy, these direct care workers are the face, voice, hands and heart of our health system for

millions of long-term care consumers. Unfortunately, these workers are typically paid poorly and provided with so little training and support that they leave direct-care for better-paying, easier, and safer jobs, elsewhere. As a result, the overall turnover rate for paraprofessionals in home care agencies ranges from 40 to 60 percent and, in nursing homes, is often as high as 100 percent.

Certified Nursing Assistants (CNAs) make up the bulk of the paraprofessional work force and perform routine tasks under the supervision of nursing and medical staff. States vary in their educational requirements for CNAs. In Oregon, CNAs are required by law to have a valid Oregon CNA certificate prior to assuming duties with the exception that if an individual is working in a licensed nursing facility, he/she has four months from date of hire to obtain certification. The training is carried out in state board approved training programs, currently 150 hours long, consisting of 75 hours of classroom and 75 hours of supervised clinical experience.

Oregon had 16,613 state-certified CNAs in 1998. Over half (51%) of these CNAs worked in nursing homes, 17 percent in hospitals, 18 percent in assisted living facilities, and the remainder worked in home health organizations and temporary help agencies. Nursing home employment has a reputation for being hard, stressful, and low paying; problems with worker retention are significant. When employed in this setting, CNAs are often the principal caregiver, having far more contact with residents than other members of the staff. The National Institute of Medicine places the average annual nursing home turnover in the nation at 105 percent. The Oregon Health Care Association recently published an industry work force study which found an average staff turnover of 49 percent within 90 days of hire. A similar survey conducted by the Oregon Senior and Disabled Services Division found that 41 percent of the respondents had worked in their current facility for less than a year and over half of this group were either uncertain about staying or planned to stay less than a year. The survey ranked quality of care and teamwork as the most important category for job satisfaction.

The home health and personal care aides occupation is expected to be one of the fastest-growing occupations through the year 2008. These direct-care workers help elderly, disabled, and ill persons live in their own homes instead of in a health facility. The demand for home health workers will increase as more individuals choose to remain in their homes rather than move to long-term care or assisted living facilities. In Oregon, the Employment Department estimated that there were 1,642 home health aides and 13,236 nursing aides, orderlies, and attendants working in Oregon during 2000. The ratio of such workers to Oregon's population was 70 home health aides and 410 nursing aides, orderlies, and attendants per 100,000 population. These statistics ranked Oregon 49th and 38th, respectively, among the 50 states in the number of health aides and nursing aides per capita.

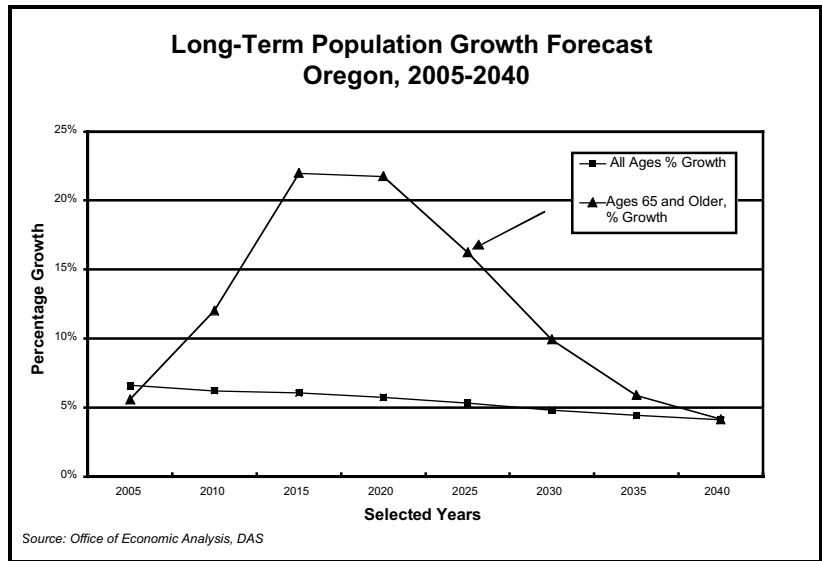
The state's home health care employment is expected to grow by almost 51 percent to 2,478 by year 2010. The Bureau of Labor Statistics estimates that the number of health and personal care aides who work in the U.S., totaling 746,000 in 1998, will grow by 58 percent to 1,179,000 workers by year 2008. In some states, this occupation is open to

individuals with no formal training and on-the-job training is generally provided. Other states may require formal training, depending on federal or state law. Median hourly wages vary from state to state but fall typically within a range of \$7.17 to \$7.99. While those working in home care receive a somewhat higher hourly wage than facility-based workers, home care tends to be only part-time work, and thus the average wage falls below that of nursing home workers.

Demographic Trends Affecting the Industry

What will be the greatest challenge to U.S. health care in the 21st century? Many experts say it will be our aging population. There will be an increasing demand for nurses and paraprofessionals due to the population growth of the nation's aging 78 million "baby boomers," those born between 1946 to 1964. As this group begins to retire and enroll in the Medicare program, they will require

increased medical care and services this is predicted to create new jobs in rehabilitation, health and fitness, wellness, imaging technologies, home health care, nutrition, diagnostic services, and disease prevention.



Graph 7

According to the Administration on Aging, the number of persons age 65 and over will reach 40 million by the year 2010, and 53 million in 2020. By 2040, the fastest growing segment of our population, Americans 85 years and older, are predicted to grow to 13 million. The "bulge" in our elderly population is being followed by a "flat" number of younger workers. The number of women in the civilian work force within the age range of 25 to 44, the main source of entry-level health care workers, is projected to decline by 1.4 percent during the next six years.

Oregon's older population segment is projected to follow the national demographic trends. The state's population of individuals 65 years of age and older is now more than 438,000 and is projected to increase to more than 936,000 by year 2025. The peak population explosion is predicted for years 2015-2020 when population growth for the 65+ age group will be around 22 percent over the five-year period (Graph 7).

Attempts to Improve the System

Ongoing efforts by politicians, industry leaders, employers, educators, and professional organizations to improve the organization of health care work may lend to building an adequate and well-trained work force in the future. Political efforts to improve the system are being evidenced in Oregon by the introduction of two legislative bills that offer school loans, nurse recruitment strategies, and training dollars for new nursing faculty. Another example is the recently passed House Bill 3353 that created a Task Force on Healthcare Personnel to study work force shortages and make recommendations to the Governor. At the academic level, the University of Portland is addressing nursing shortages by changing its programs to admit more students to its upper-level nursing courses. Industry leaders are also organizing efforts to solve work force shortages. This type of cooperation is evidenced by the recent organization of the Oregon Nursing Leadership Council, which is a group of six statewide nursing organizations that have joined to develop and implement a strategic plan to ease the current nursing shortages. Three of their goals include doubling enrollment in Oregon nursing programs by 2004, recruiting and retaining nurses in the profession, and creating the Oregon Center for Nursing to coordinate the implementation and ongoing evaluation of the plan.

Conclusion

There seems to be agreement that concerns over an adequate health care workforce are likely to grow as demographic pressures associated with an aging population are expected to both increase demand for health care services and limit the pool of available workers. As a result of this trend, Oregon, along with the nation, may face a health care shortage of different dimensions from shortages of the past. Recent legislative, industry and organizational efforts to address these challenges could help to reverse this trend along with strategies to improve wages, job satisfaction, working environments, and recruitment and retention efforts.