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ABSTRACT

Between 1994 and 2005, employment in the United States will rise to 144.7 million from 172 million, an increase of 14 percent, with women's labor force growth expected to be twice that of men. Growing occupations requiring a Bachelor's degree or above include the following: lawyers, physicians, systems analysts, computer engineers, management analysts, residential counselors, secondary and special education teachers, writers and editors, personnel specialists, designers, artists, and social workers. The following growing occupations require postsecondary training less than a bachelor's degree: registered nurses, police officers, sports instructors, nonvocational instructors, vocational education teachers, air conditioning and heating mechanics, correctional officers, and licensed practical nurses. In addition, many workers will be needed as replacements in the following occupational categories: insurance claims and policy processors; secretaries; general office clerks; engineering and science technicians and technologists; real estate agents, brokers, and appraisers; and construction trades. Most of the occupations with the fastest projected growth are concentrated in the services, retail trade, and government industries, with health services industries expanding most rapidly and computer services and paralegal occupations also expanding quickly. High-paying nontraditional occupations for women include the following: architects, police officers and detectives, engineers, construction inspectors, insulation workers, mechanics and repairers, and firefighters. (KC)

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# Facts on Working Women

U.S. Department of Labor  
Women's Bureau

No. 97-4  
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U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
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## HOT JOBS FOR THE 21ST CENTURY

**Future Projections:** Between 1994 and 2005, employment will rise to 144.7 million from 127.0 million. This represents an increase of 14 percent, or 17.7 million jobs. Many of these new opportunities will be in areas we would never have anticipated twenty, or even ten, years ago. Occupations that used to offer solid careers are in decline, while positions once unheard of are now among the fastest growing. In today's fluid economy, it is extremely important to plan our careers with all the available information about where the jobs are -- and where they will be in the future.

**Women's Labor Force:** Women have a huge stake in the current and future job market. Women's labor force growth is expected to increase at a faster rate than men's -- 16.6 percent between 1994 and 2005 as compared with 8.5 percent for men. This means that women will increase their share of the labor force from 46 to 48 percent.

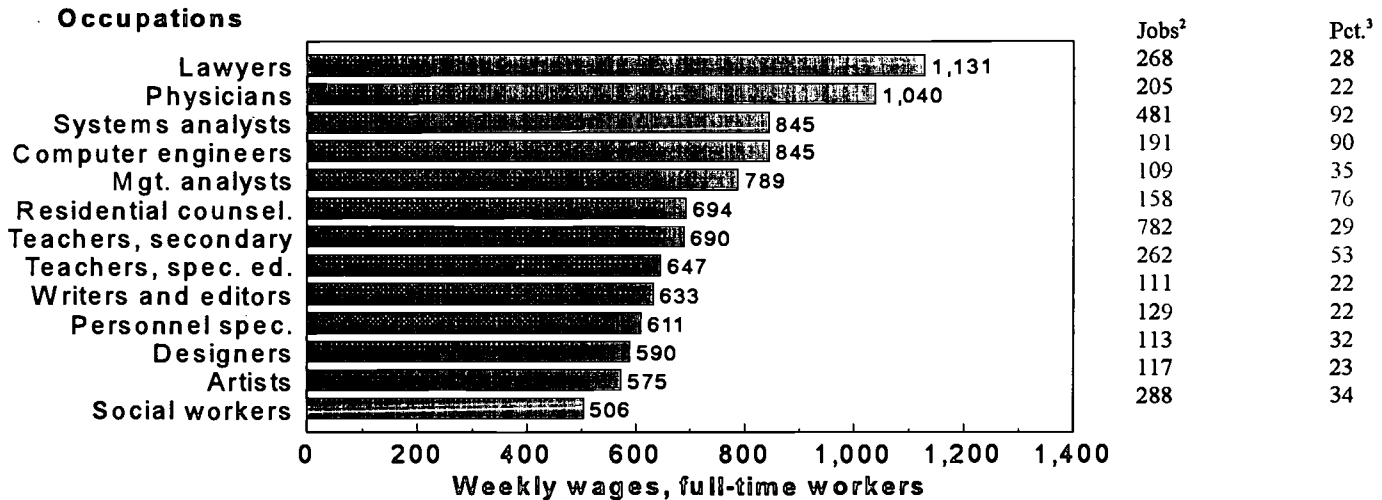
**Employment in Large Occupations:** While much of this report will focus on opportunities in occupations with rapid growth, slower growing large occupations are also expected to offer a significant number of job openings. This is primarily because of turnover in their large employment bases. Examples of such occupations are: *insurance claims and policy processors; secretaries; general office clerks; engineering and science technicians and technologists; real estate agents, brokers, and appraisers; and construction trades occupations.*

**Fast Growing Occupations:** Of the 500 occupations for which the Bureau of Labor Statistics (BLS) projects employment, the 21 included in Charts 1 and 2 are growing faster or much faster than average, will each add at least 100,000 jobs between 1994 and 2005, and generally have higher than average earnings.<sup>1</sup> These high-potential jobs vary greatly with regard to educational/training requirements, the skills and aptitudes of workers, working conditions, and the nature of the work. All of them -- except for correctional officers and licensed practical nurses -- had 1996 median weekly earnings higher than the \$490 average for all wage and salary workers who usually work full time.

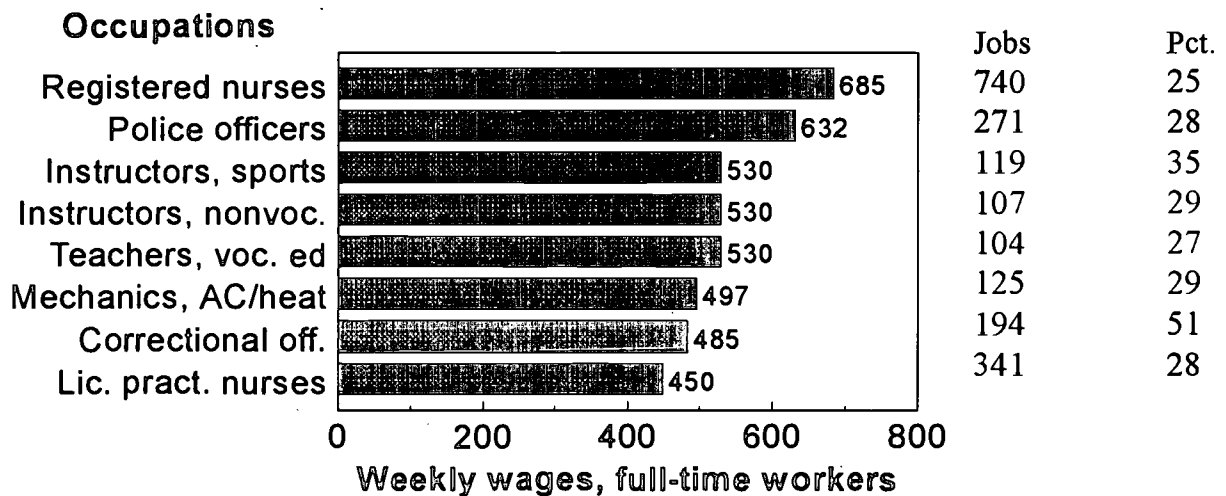
<sup>1</sup>Even though wage and salary data are available for 1996, 1994 wage and salary data are being used in Charts 1 and 2 and Table 1 to correspond with the projection period of 1994-2005.

## High-paying, fast-growing occupations

**Chart 1 Occupations requiring a bachelor's degree or more**



**Chart 2 Occupations requiring post-secondary education or training**



<sup>2</sup> Total openings, 1994-2005 in thousands.

<sup>3</sup> Percent change, 1994-2005.

**Educational Requirements:** Education and training are critical elements in preparing for our employment futures. As Chart 1 shows, many high-paying, fast-growing occupations require at least a bachelor's degree.

Occupations that require a bachelor's degree or more education are concentrated in the professional specialty group. Median weekly earnings in 1994 for that group were higher than the average for all full-time wage and salary workers (\$467). Examples of fast-growing jobs in this category include: *lawyers, systems analysts, computer engineers, residential counselors, elementary/secondary school teachers, special education teachers, writers and editors, and social workers.*

Chart 2 shows other fast-growing, high-paying occupations that may not require a bachelor's degree but do require post-secondary education or training. Examples of these are: *registered nurses, who need to earn at least an associate's degree; and police patrol officers, sports instructors and coaches, and heating/air-conditioning mechanics, who must have on-the-job training.* (It is important to realize that employers may favor applicants with more education or training than is minimally required.)

Growth occupations that generally do not require post-secondary education do not offer the higher than median pay associated with the above-mentioned jobs. They include: *home health aides, human service workers, retail salespersons, cashiers, and truck drivers.* Few of these occupations had median weekly earnings higher than the average for all workers in 1994.

**Future Growth:** Most of the occupations with the fastest projected growth are concentrated in the rapidly growing services, retail trade, and government industries.

Within the service-producing industries, a large number of the fastest growing occupations are clustered in the health services sector. Health services occupations are expected to expand more than twice as fast as the economy as a whole. This group also dominated the fastest growing occupations during the 1983-1994 period. In fact, seven of every ten new jobs for technicians will be for health technologists and technicians. Fast-growing health services occupations include: *personal/home care aides and home health aides, occupations which may not require formal training and have lower than median earnings; as well as dental hygienists, radiologic technologists, registered nurses and physical/corrective/occupational therapists, jobs which require formal education/training and offer higher than median earnings.*

Health services occupations will continue to grow because of: 1) the growing population of elderly persons; 2) the discovery of new therapies for life-threatening and disabling conditions; 3) medical advances that extend the lives of more patients with critical problems; 4) the need to maintain records for an increasing number of medical tests, treatments, and procedures; and 5) continued recognition of the need for preventive medical care by the populace, physicians, and health organizations.

**Computer-related occupations** (*systems analysts, computer engineers, operations research analysts, data processing equipment repairers*) will also grow at a fast rate in the coming years because of the continuing advances in computer technology. The expanding need for scientific research, productivity gains, and demand for cost reductions will fuel the need for computer engineers/programmers, systems analysts, and computer and data processing repairers. The computer field tends to require more education and offer higher earnings than does health services, where a number of the fast-growing occupations have lower than median earnings.

**Paralegals** are expected to be in great demand as well, reflecting efforts to reduce the cost of legal services. This was one of the fastest growing occupations during the 1983-1994 period and will continue to be so through 2005.

The number of **special education teachers** needed will also increase, reflecting greater awareness of the abilities and potential contributions of people with disabilities.

Within **retail trade**, *salespersons, cashiers, waiters and waitresses, food preparation workers, marketing/sales worker supervisors, and food service and lodging managers* can expect substantial job growth. Many of these jobs do not require post-secondary education or training. As a group, they offer lower than average median earnings. They also have a history of high employee turnover and few fringe benefits, and much of this work is contingent in nature.

**Public sector employment** is projected to increase by 1.9 million between 1994 and 2005, from 19.1 million to 21.0 million. State and local government employment is expected to increase from 16.2 million in 1994 to 18.4 million in 2005. Much of this increase will be in the education field because of the growth in the school-age population. The elementary school population is expected to rise by 2.2 million, the secondary school population, by 2.6 million, and the post-secondary school population, by 3.1 million, creating the need for more teachers. Federal government employment, however, is projected to decrease by as much as 235,000.

**Declining Occupations:** While many occupations are growing rapidly, others are experiencing significant declines. These result from technological advances, organizational changes, shifts in consumer demand for certain goods and services, foreign trade, and changes in the geographical location of the production of certain goods and services. Declining occupations include: *farmers, sewing machine operators, electrical/electronic assemblers, private household cleaners/servants, office machine operators, service station attendants, and bank tellers.*

**Nontraditional Occupations for Women:** The U.S. Department of Labor Women's Bureau has a long history of encouraging women to seek jobs offering good wages and employee benefits, many of which are in nontraditional occupations for women. We use "nontraditional occupation," or NTO, to describe any occupation in which women comprise 25 percent or less of total employment.

Many people hear this term and think immediately of outdoor work that is physically demanding, dirty or dangerous in nature -- construction jobs, automobile mechanics, or heavy equipment operators. In fact, NTOs span all six major occupational groups -- managerial and professional; technical, sales, and administrative support; service; precision production, craft and repair; operators, fabricators, and laborers; and farming, forestry, and fishing occupations. Judges, dentists, clergy, and musicians may not fit the stereotype, but they are all NTOs.

NTOs tend to offer higher wages than many of the occupations where women are in the majority. Table 1 shows selected NTOs with median weekly earnings higher than average for all wage and salary workers who usually work full time. These occupations are either growing at a greater than average rate or creating a large number of job openings or both. It is important to note that while women should consider promising NTOs, they should also look to fast-growing, high-paying fields where women are already in the majority. Some examples (from Charts 1 and 2) are: *secondary school teachers, special education teachers, and registered nurses.*

**Table 1**  
**Selected high-paying, fast-growing nontraditional occupations for women**

<b>Occupation</b>	<b>Percent Women</b>	<b>Weekly Earnings</b>	<b>Total job Openings<sup>1</sup></b>	<b>Percent Change<sup>2</sup></b>
<b>Architects</b>	16.7	702	35	17
<b>Police and detectives</b>	15.3	582	416	24
<b>Engineers</b>	8.5	897	581	19
<b>Construction inspectors</b>	8.5	648	28	22
<b>Insulation workers</b>	6.9	485	34	20
<b>Mechanics and repairers</b>	4.3	519	1,950	11
<b>Firefighters</b>	2.6	629	169	16

<sup>1</sup> In thousands between 1994-2005.

<sup>2</sup> Between 1994-2005.

Congress has passed two pieces of legislation to help women gain self-sufficiency by increasing opportunity in nontraditional fields. The Nontraditional Employment for Women (NEW) Act, effective July 1, 1992, was created to broaden the range of Job Training Partnership Act (JTPA) training and placement for women. The Women in Apprenticeship and Nontraditional Occupations (WANTO) Act, effective October 27, 1992, was designed to provide technical assistance to employers and labor organizations.

The Women's Bureau and the U.S. Department of Labor's Employment and Training Administration (ETA) have awarded 23 NEW grants to 22 States to provide for systemic change in State JTPA and other training and placement programs. Almost 5,000 women have directly participated in training and/or job placement. NEW program awareness and orientation classes have also reached -- and continue to make contact with -- more than 30,000 women through program notices, workshops, conferences, seminars, videos, notices in churches, welfare agencies and related social agencies, and community mailings.

Through WANTO, the Women's Bureau and ETA's Bureau of Apprenticeship and Training have awarded community-based organizations 17 grants to provide technical assistance to employers and labor organizations promoting apprenticeship and NTOs in their workplace policies and practices. WANTO has provided almost 2,000 direct consultations and has indirectly provided assistance to many more employers and labor organizations and their representatives to develop strategies through conferences, workshops, and subject-specific seminars (mentoring, sexual harassment, support groups, training, etc.) in on- and off-site venues.



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