

# The Registered Nurse Population:

National Sample Survey of  
Registered Nurses  
March 2004



## Preliminary Findings

OMB No.: 0915-0192  
Expiration Date: 07/31/2002

**National Sample Survey of Registered Nurses**

DEPARTMENT OF HEALTH & HUMAN SERVICES  
Bureau of Health Professions  
Division of Nursing

Public Health Service  
Health Resources and Services Administration  
Rockville MD 20857

Dear \_\_\_\_\_

We are writing to request your participation in an important study of the nurse population in the United States. This survey is being conducted for the Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services by the Research Triangle Institute. The information is for statistical purposes only and will not be connected with your name. Individually identifiable information will be used for sample definition and for preventing data duplication. Once this process is completed, individual identifiers will be destroyed. Participation is voluntary, and there are no penalties for failure to answer any question; however, each unanswered question substantially reduces the accuracy of the data.

This study is being carried out to assist in fulfilling congressional requirements stated in Section 951 of P.L. 94-63 (42 USC 296 note), which specifies that information be obtained, on a continuing basis, on the number and distribution of nurses, and in Section 792 of Title VII of the Public Health Service Act (42 USC 285k), which calls for the collection and analysis of data on health professionals. These public laws require the preparation and submission of reports to Congress. In addition, these data are a primary resource throughout the health care arena as studies are made assessing the number and characteristics of the registered nurse supply.

The questionnaire has been divided into five sections. These sections are designed to gather information on (a) your education background, (b) your employment in nursing, (c) your employment status if you are not currently employed in nursing, (d) prior nursing employment status, and (e) general information.

Please read and follow all instructions carefully and answer all questions unless otherwise instructed. It should take about 20 minutes of your time to complete. Return the completed questionnaire in the postage-paid envelope enclosed in this package at your earliest convenience. All RNs who have received the questionnaire are requested to complete it regardless of their retirement or working status. If possible, we suggest you complete it now. If you have any questions, please call (toll-free) Kris Fahmy at 877-294-1302.

Sincerely,  
Denise H. Geok, PhD, RN, FAAN  
Director

**Section B. Employment Status**

8. In the next questions, employment also includes being on a temporary leave of absence from your nursing position; on vacation; on sick leave; or a nurse doing private duty or working through a temporary employment service and not on a case at the moment.

Were you employed in nursing as of March 22, 2000?  
Yes ☐ No ☐ → Skip to Question 20

Questions 9 through 13 refer to your position in nursing and your employment status as of March 22, 2000. If you were not employed in nursing at that time, mark the box for your position in nursing at that time.

7a. Are you currently enrolled in a formal education program leading to an academic degree with a nursing or nursing-related major?  
Yes ☐ No ☐ → Skip to Question 6

7b. Are you considered a full-time or part-time student?  
Full-time student ☐ Part-time student ☐

7c. What degree are you currently working toward in this program? (Mark only one box.)  
Associate Degree ☐  
Bachelor's Degree ☐  
Master's Degree ☐  
Doctorate ☐  
Other (specify) ☐

7d. How are your tuition and education on March 22, 2000, paid?  
(Mark all that apply.)  
You were employed in nursing at that time ☐  
You were employed in nursing at that time and were generally available for work throughout the normal work week ☐  
You were employed in nursing at that time and were generally available for work throughout the normal work week, but you worked less than the normal work week ☐  
You were employed in nursing at that time and were generally available for work throughout the normal work week, but you worked less than the normal work week, and you worked less than the normal work week ☐  
You were employed in nursing at that time and were generally available for work throughout the normal work week, but you worked less than the normal work week, and you worked less than the normal work week ☐

12a. How many weeks have you been actively seeking a nursing position?  
Less than a week ☐  
One week or more ☐  
How many weeks? \_\_\_\_\_ weeks

12b. Are you looking for a full-time or part-time nursing position?  
Full-time ☐ Part-time ☐ Either ☐

13. What was the location of your principal nursing position on March 22, 1997? If you were not employed in a fixed location (e.g., you were a private-duty nurse), consider the area where you spent most of your working time as your location of employment.  
City: \_\_\_\_\_  
County: \_\_\_\_\_  
State (or country if not USA): \_\_\_\_\_  
ZIP+4 code: \_\_\_\_\_

## **Preliminary Findings 2004 National Sample Survey of Registered Nurses**

The National Sample Survey of Registered Nurses (NSSRN) is the Nation's most extensive and comprehensive source of statistics on registered nurses (RNs) with current licenses to practice in the United States whether or not they are employed in nursing. Government agencies, legislative bodies and health professionals have used data from previous national sample surveys of registered nurses to inform workforce policies. Responses are used to estimate the number of RNs living and working in the United States; the educational background of RNs, including State or country of initial education and specialty area; employment status including type of employment setting, position level and salary; geographic distribution; and personal characteristics including gender, racial/ethnic background, age, family status, and job satisfaction.

The Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions previously conducted seven sample surveys. Reports from the surveys, conducted in 1977, 1980, 1984, 1988, 1992, 1996 and 2000, have been published and made available to those involved in health care planning and evaluation as well as to the public. The eighth NSSRN began data collection in March 2004 and responses were received through November 2005. This report provides preliminary findings from the current survey.

The development of a design for collecting data through sample surveys of RNs was initiated in July 1975. The survey design for the 2004 NSSRN follows that of the previous seven surveys. A probability sample is selected from a sampling frame compiled from files provided by the State Boards of Nursing in the 50 States and the District of Columbia. However, the sample frame and weighting procedures are designed to provide an unduplicated count of licensed RNs rather than of licenses, given that many RNs have licenses in more than one State. Sampling rates are set for each State based on considerations of statistical precision of the estimates and the costs involved in obtaining reliable national and State level estimates. The 2004 NSSRN eligible sample size of 56,917 licensed RNs yielded 50,691 eligible sampled RNs who were sent surveys, of whom 35,724 individual RNs responded for a response rate of 70.5 percent. The resulting database for the 2004 NSSRN is comprised of 35,724 individual licensed RNs from all 50 States and the District of Columbia.

### **The Registered Nurse Population**

After applying weights to each response, the total number of licensed RNs living and working in the United States was estimated to be 2,909,467<sup>1</sup> as of March 2004, an increase of 7.9 percent or 212,927 above the 2,696,540 licensed RNs estimated in 2000. This increase is higher than the 5.2 percent increase reported between 1996 and 2000 when the RN population increased by

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<sup>1</sup> National estimate of the total number of RNs (RN population) is between 2,897,467 and 2,921,467 RNs at the 95percent level of confidence level, a margin of error of +/- 0.7 percent. For the purposes of this document, the weighted estimates are stated without reporting the sampling errors associated with each characteristic.

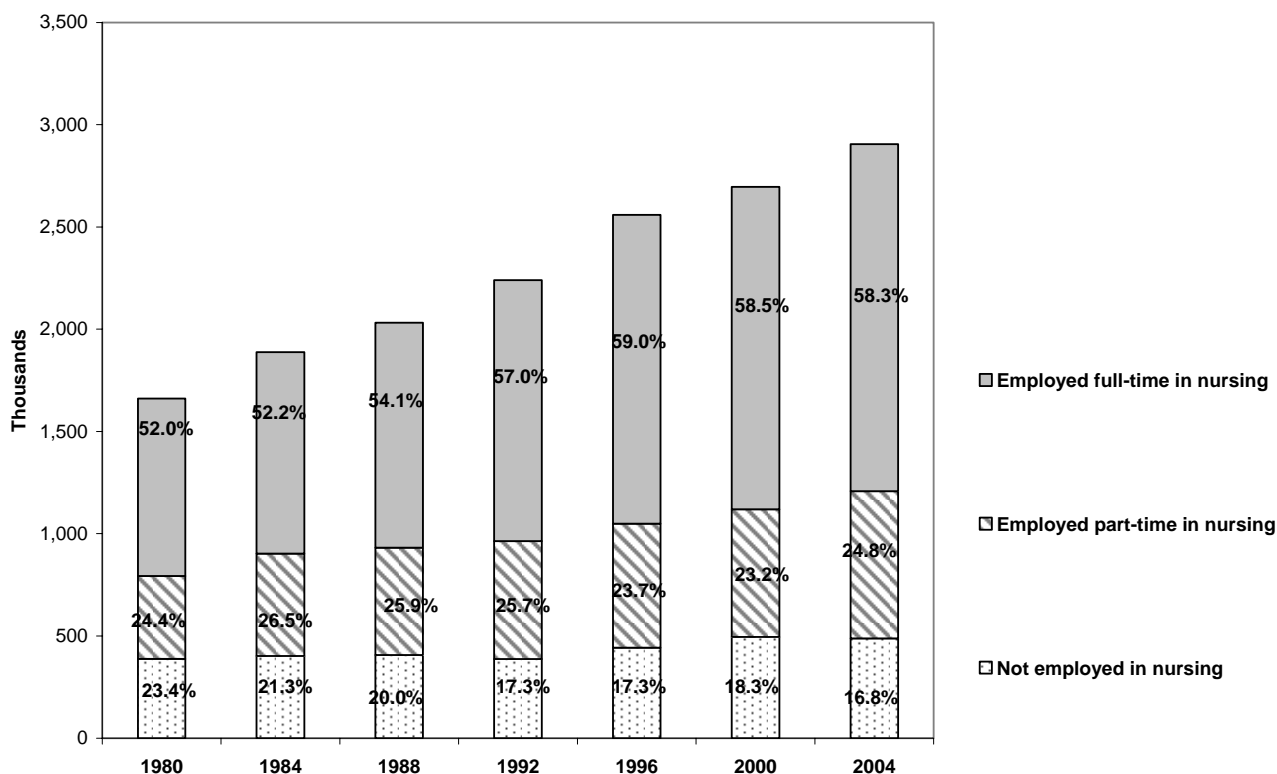
137,666, but lower than the estimated 14.2 percent or 319,058 increase between 1992 and 1996, which was the highest rate of growth since 1980.

## The Registered Nurse Workforce

Of the total licensed RN population in March 2004, 83.2 percent (an estimated 2,421,461) were employed in nursing in 2004 and 16.8 percent were not employed in nursing in 2004. This estimate of the number employed in nursing represents an increase of 219,647 RNs (10 percent) over the projected 2,201,813 RNs employed in nursing in 2000.

Chart 1 illustrates trends in the total number of RNs employed full-time, part-time, or not employed in nursing over time.

**Chart 1. Registered Nurse Population by Nurse Employment Status, 1980-2004**



Of the total estimated population of nurses in 2004, 58.3 percent (1,696,916) were working full-time, almost 25 percent (724,544) were working part-time in 2004, and 16.8 percent were not employed in nursing. Although the number of nurses working full-time has increased from 1,510,318 in 1996 to 1,696,916 in 2004, the change in the number and percent of nurses working full-time from 2000 to 2004 was slight (120,241 more nurses working full-time in 2004, a decrease from 58.5 to 58.3 percent in the number of full-time nurses). From 2000 to 2004 there was a slight increase in the number of nurses working part-time (an estimated increase of 95,141 part-time nurses or an increase from 23.2 to 24.8 percent). The change in the number of nurses not employed in nursing was negligible.

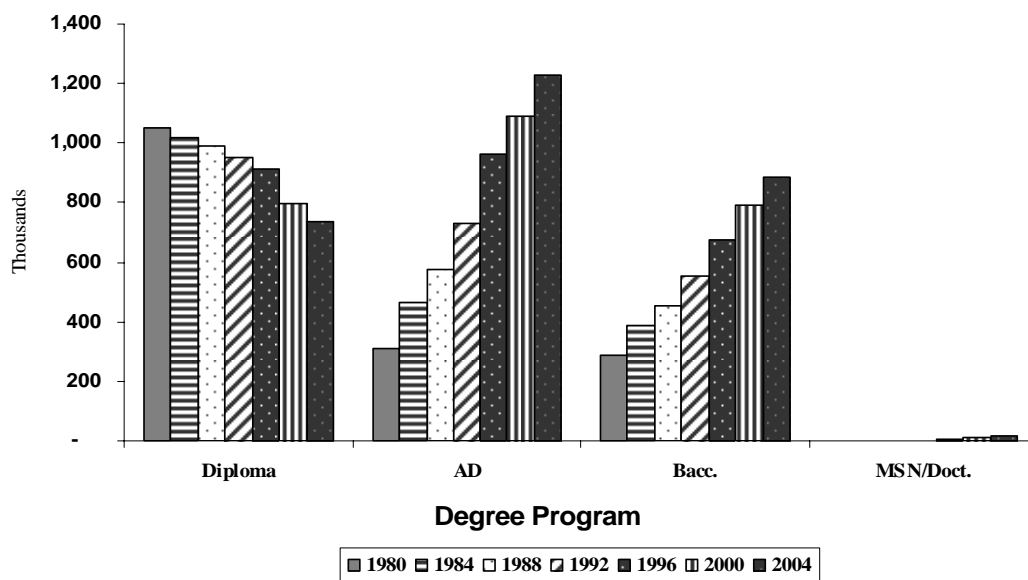
## Educational Preparation

In 2004, the most common initial preparation for nursing was an associate's degree (Chart 2). During the past two decades or so, there has been a downward trend in the number of nurses whose initial preparation for nursing was a diploma program. The trend away from diploma programs and toward associate degree or baccalaureate programs continued in 2004.

Since 1996, the number of RNs completing associate's degrees has exceeded the number graduating from diploma programs. In 2004, the number of RNs whose initial preparation was either an associate's degree or a baccalaureate program exceeded the number graduating from a diploma program. In contrast, in the 1980 survey, 63.2 percent of licensed RNs had received their initial nursing education in a diploma program; while in 2004, only 25.2 percent (733,377) licensed RNs had received their initial RN nursing education in a diploma program.

Corresponding figures for RNs with an associate degree increased from 19 percent (308,616 nurses) in 1980 to 40.3 percent (1,087,602) in 2000 to 42.2 percent (1,227,256) in 2004. For RNs who completed their initial preparation in a baccalaureate degree program, the estimated figures indicate an increase from 17.3 percent (287,993) in 1980 to 29.3 percent (791,004) in 2000 and to 30.5 percent (887,223) in 2004. In addition, an estimated 0.5 percent of RNs in 2004 (15,511) had received their initial nursing education through a master's or doctoral degree program.

**Chart 2. Initial Nursing Preparation of the Registered Nurse Population, 1980 - 2004**

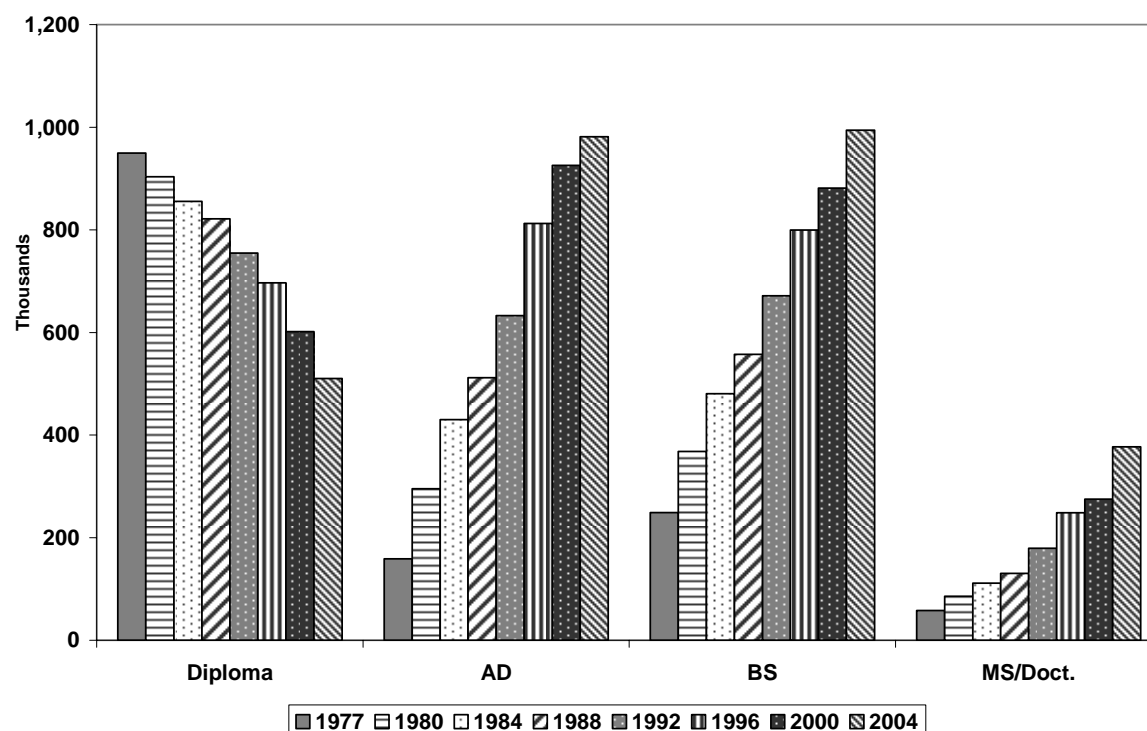


Similarly, in terms of the highest level of preparation for nursing, the trend from 1980 to 2004 indicates that an increasing number of RNs receive baccalaureate and master's degrees, even if their initial preparation for nursing was an associate's degree or a diploma (Chart 3). The 2004 survey indicates that the RN population is increasingly prepared with a baccalaureate, a master's,

or doctorate degree. The highest level of preparation for an estimated 17.5 percent of RNs (510,209) is a diploma; for an estimated 33.7 percent (981,238) the highest preparation is an associate degree; for 34.2 percent (994,240) it is a baccalaureate degree; and for 13.0 percent (377,046) it is a master's or doctoral degree.

In fact, the highest increase from 2000 to 2004 was for the number of RNs receiving their master's or doctorate degrees (an estimated increase of 101,978 RNs or 37 percent) compared to a decrease of 91,495 nurses or 15.2 percent in the number of RNs whose highest degree was a diploma. Over the entire period from 1980 to 2004, there was a 43.5 percent decrease (an estimated change from 903,131 RNs to 510,209) in the number whose highest level of preparation was a diploma, while the number whose highest level was a masters or doctorate increased by 339 percent (from 85,860 to 377,046). Similarly, the estimated number of RNs whose highest preparation was a baccalaureate increased by 170 percent (367,816 to 994,240) and the estimated number whose highest preparation was an associate's degree increased by 232 percent from 295,318 to 981,238 RNs.

**Chart 3. Highest Educational Preparation of Registered Nurses 1980-2000**



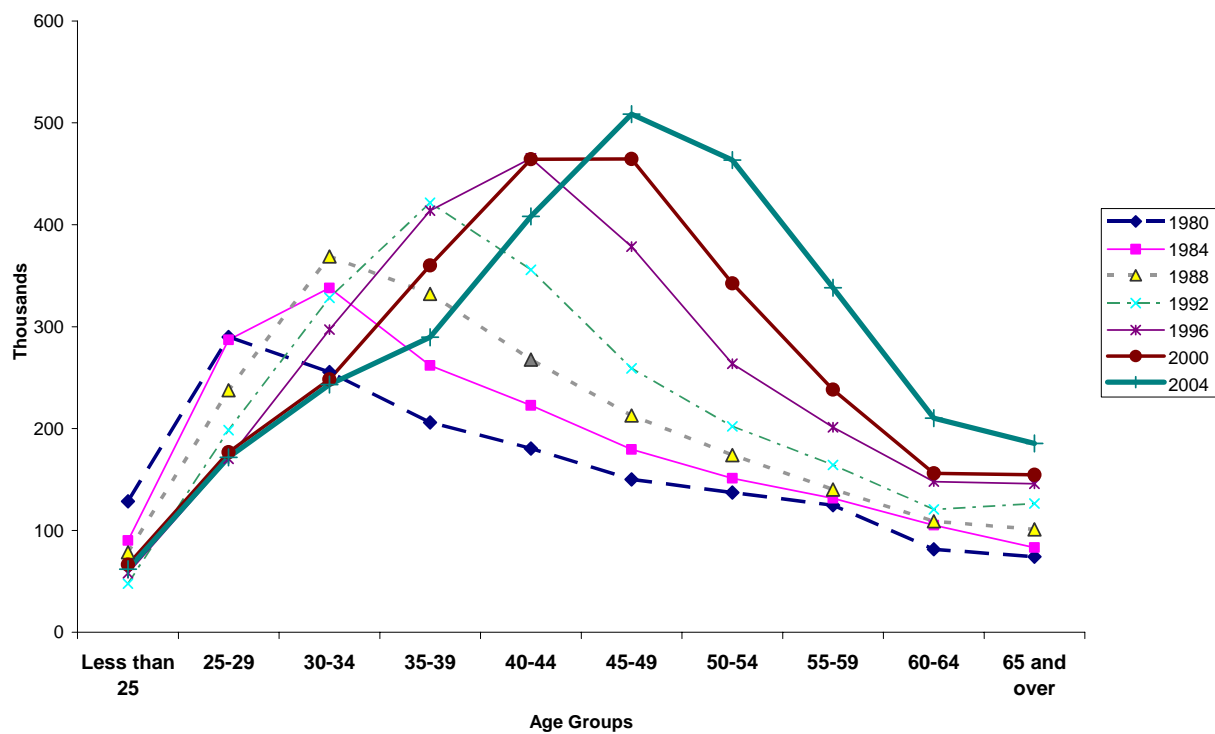
## Age

The trend toward more RNs in older age groups continued, as demonstrated by the changes across surveys. The average age in each survey since 1980 has increased. In March 2004, the average age of the RN population was estimated to be 46.8 years of age, more than a year older than the average age of 45.2 years estimated in 2000; and more than 4 years greater than in 1996 when the average age was 42.3 years.

This trend is further demonstrated by observing changes in the percent of RNs in the lower and higher age groups. In 2000, an estimated 31.7 percent of all RNs were under the age of 40; in 2004 only 26.6 percent of all RNs were estimated to be under the age of 40. Similarly, in 1980, 40.5 percent of RNs were under the age of 35, compared to only 16.6 percent in 2004. The RN population under 30 dropped from an estimated 9.1 percent in 2000 to 8.1 percent in 2004. On the other hand, the percent of nurses over 54 years of age increased to 25.5 percent in 2004, compared to 24.3 percent in 2000 and 17.2 percent in 1980.

Chart 4 also indicates the continued movement of the nurse population toward older age groups. For example, the largest group of RNs in 1980 was aged 25 to 29, in 1992 the largest group was 35 to 39 years of age, and in 2000 it was 40 to 44 years of age. In 2004 the age group with the largest estimated number of RNs was the 45 to 49 year group. In contrast, the numbers in the younger age groups continue to be relatively smaller in each 4-year period. Although the 2000 and 2004 lines appear to overlap for the age groups 34 years and under, the 2004 estimates for the age groups 45 years and older are clearly higher than the 2000 estimates.

**Chart 4: Age Distribution of the Registered Nurse Population, 1980-2004**



## **Gender**

Continuing the history of nursing, relatively few men are licensed as RNs, with a slight, insignificant increase estimated for 2004 from 5.4 percent in 2000 to 5.7 percent in 2004. However, it appears that the initial nursing preparation for more male RNs was an associate's degree rather than a diploma (53.5 percent for men compared to 42.2 percent for women). More female RNs graduated from a diploma program (26.3 percent of female RNs compared to 13.9 percent of men). The percentages of male and female RNs completing a baccalaureate or higher degree initial nursing program were surprisingly similar, 32.7 percent and 31.5 percent, respectively. When the highest nursing-related educational preparation is considered, 47.7 percent of female RNs completed at least a baccalaureate program compared to 46.2 percent of males.

## **Family Status**

The 2004 survey estimated that 70.5 percent of RNs are married; 18.1 percent are widowed, divorced, or separated; and 9.2 percent have never married. The majority (52.1 percent) of RNs have children and/or other adults at home. Of these RNs and allowing for multiple responses, 28.3 percent have children under age 6 at home, 65.2 percent have children 6 to 18 at home, and 30.6 percent have other adults at home. An additional 14.8 percent of nurses have other dependents who do not live at home.

## **Racial/Ethnic Background**

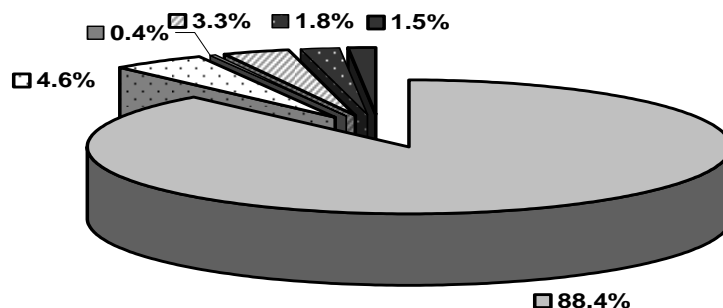
In March 2004, about 7.5 percent of RNs did not specify their racial/ethnic background and 81.8 percent of the RN population were estimated to be White (non-Hispanic), leaving 10.6 percent in one or more of the identified racial and ethnic minority groups. In 2000, 12.3 percent of the RN population was estimated to be in one of the non-White racial/ethnic minority groups identified.

Of the nurses who indicated their racial/ethnic background in 2004, 88.4 percent (an estimated 2,380,639) were White, non-Hispanic; 4.6 percent or 122,495 were Black/African American, non-Hispanic; 3.3 percent or 89,976 were Asian or Pacific Islander, non-Hispanic; 1.8 percent or 48,009 were Hispanic; 0.4 percent or 9,453 were American Indian/Alaskan Native; and 1.5 percent were from two or more racial backgrounds (Chart 5).

Due to a change in definitions, comparisons of the racial/ethnic composition of the RN population to surveys prior to 2000 should be viewed carefully. In accordance with the Office of Management and Budget (OMB), the question regarding racial and ethnic background in the March 2000 survey was changed from the previous surveys. Nurses were asked to identify their ethnic background and then asked to identify all races that could best describe them. The information was aggregated to categories similar to those reported in previous years, with one additional grouping of non-Hispanics that reported being of mixed race (two or more races). In surveys prior to 2000, nurses had to choose from one of the racial/ethnic categories presented.

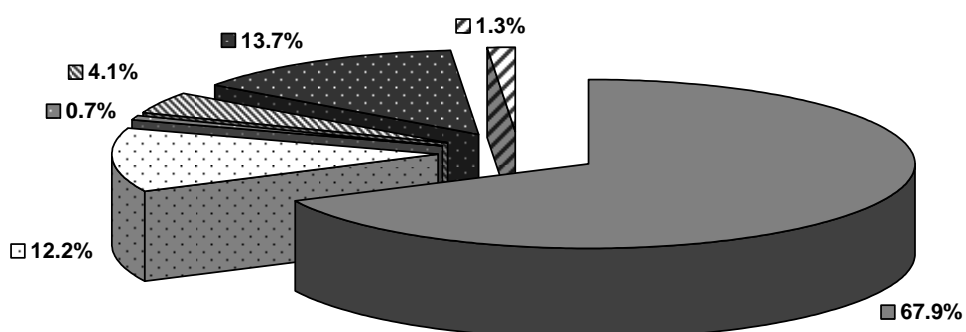
**Chart 5. Distribution of Registered Nurses and the U.S. Population by Racial/Ethnic Background, 2004.**

**2004 NSSRN**



White, non-Hispanic	Black, non-Hispanic
American Indian/Ala. Native, non-Hispanic	Asian/PI, non-Hispanic
Hispanic	Two or more races, non-Hispanic

**U.S. Population**



White, non-Hispanic	Black, non-Hispanic
American Indian/Ala. Native, non-Hispanic	Asian/PI, non-Hispanic
Hispanic	Two or more races, non-Hispanic

*\*Source - Table 3: Annual Estimates of the Population by Sex, Race and Hispanic or Latino Origin for the United States: April 1, 2000 to July 1, 2004 (NC-EST2004-03). Population Division, U.S. Census Bureau. Release Date: June 9, 2005.*



## Employment Settings

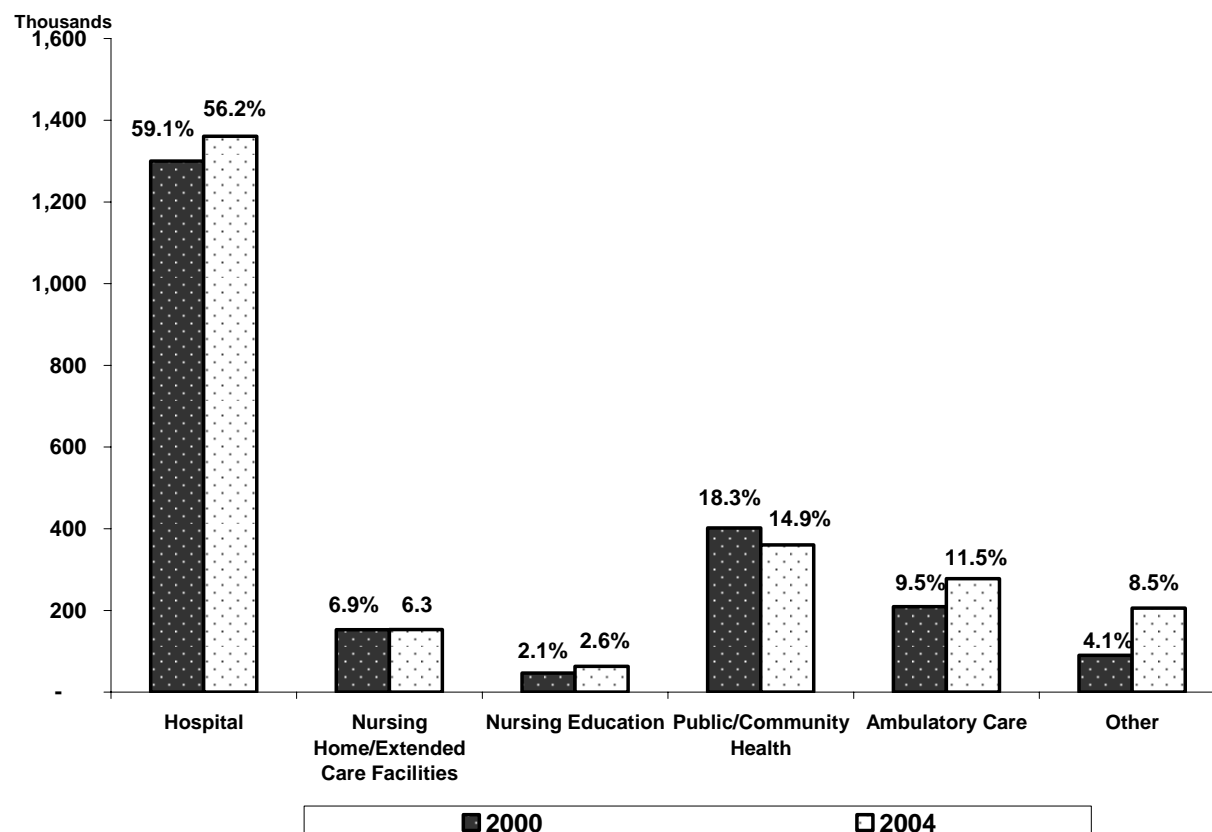
Five major employment settings were identified for RNs: hospitals; nursing homes and extended care facilities; community and public health settings; nursing education; and ambulatory care settings. Community and public health settings include: State and local health departments, visiting nursing services and other health agencies, community health centers, student health services, occupational services and school health.

Results from the 2004 survey indicate a slight trend away from the hospital as the setting for the principal nursing position, although changes in the structure of hospitals (e.g., more specialty outpatient clinics) may explain some of the change. Although the estimated number of RNs whose principal position was in hospitals was greater than in 2000, the percentage of RNs working in hospitals decreased from 2000 to 2004 (Chart 6). In March 2004, out of an estimated 2,421,460 RNs employed in nursing, 56.2 percent (1,360,956) worked in hospital settings compared to 59 percent (1,300,323) in March 2000.

Community and public health settings remained the next largest type of predominant employment for RNs; but the percent of RNs employed in these settings also decreased, from an estimated 18.3 percent of RNs reporting public or community health settings in 2000 to 14.9 percent in March 2004. The percent of RNs reporting nursing homes and extended care facilities as their principal setting remained relatively constant between 2000 (6.9 percent) and 2004 (6.3 percent).

In contrast, the percent of RNs reporting their principal nursing position in other types of settings, particularly ambulatory care, increased from 2000 to 2004. In 2004, 11.5 percent of RNs were estimated to be employed in ambulatory care settings, including physician-based practices, nurse-based practices, and health maintenance organizations, compared to 9.5 percent in 2000. The remaining RNs employed in nursing reported working in such settings as nursing education, Federal administrative agencies, State boards of nursing or other health associations, health planning agencies, prisons/jails, insurance companies, and other miscellaneous settings such as pharmaceutical and durable medical equipment companies (Chart 6). It appears likely that the number and percent of nurses employed in these “other” settings may continue to increase given changes in health care delivery.

**Chart 6. Employment Settings of Registered Nurses, 2000 and 2004.**



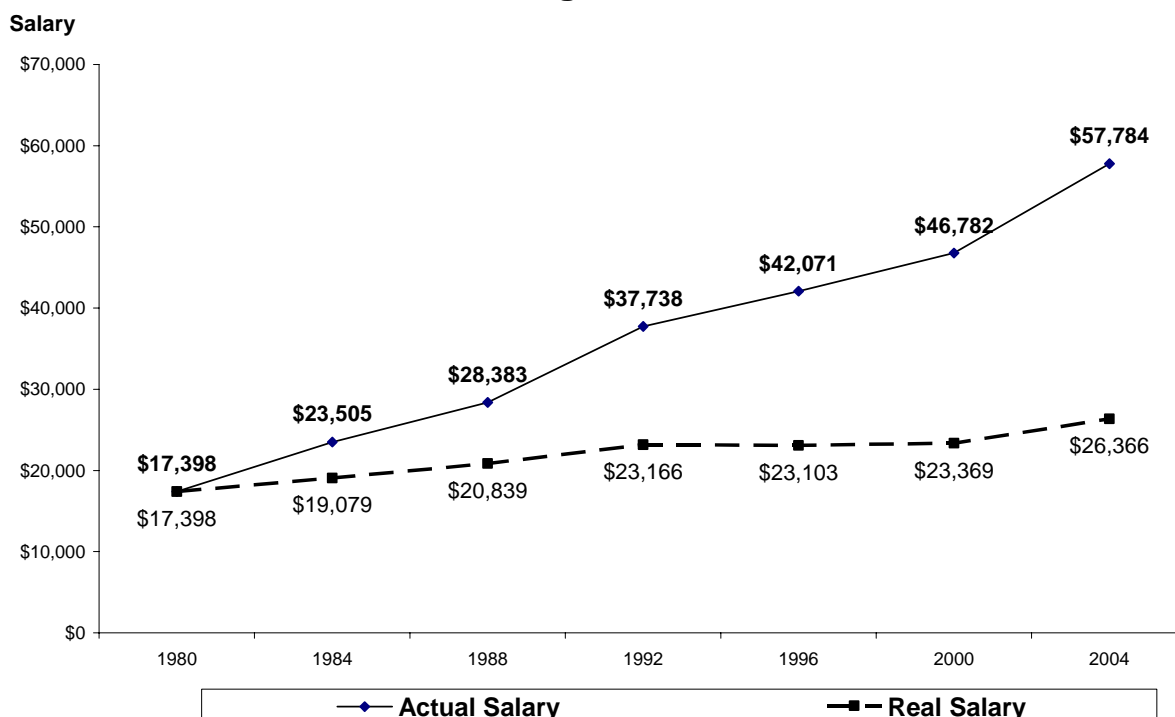
### Average Earnings

Changes in average earnings of RNs were examined based on the actual average earnings of RNs employed full-time in the labor market and the “real” average earnings (average earnings inflated by the consumer price index (CPI)<sup>2</sup> for 1980-2004). The actual average annual earnings of RNs employed full-time in 2004 were \$57,784 which appears to be an increase from average earnings in 2000 (\$46,782).

When changes in the purchasing power of the dollar are taken into account utilizing the CPI, the “real” earnings of RNs employed full-time in 2004 were estimated as \$26,366 compared to \$17,398 in 1980 and \$23,369 in 2000. This change represents a 12.8 percent increase since 2000 and is the first significant up-turn in “real” earnings since 1988. Between 1988 and 1992 RNs experienced an 11.2 percentage increase in “real” earnings, but “real” salaries were relatively flat from 1992 through 2000 (Chart 7).

<sup>2</sup> The base year for the Consumer Price Index (CPI) for this study is 1980 (CPI adjusted to equal 100). The data are extracted from the U.S. Department of Labor, Bureau of Labor Statistics data at [www.bls.gov](http://www.bls.gov).

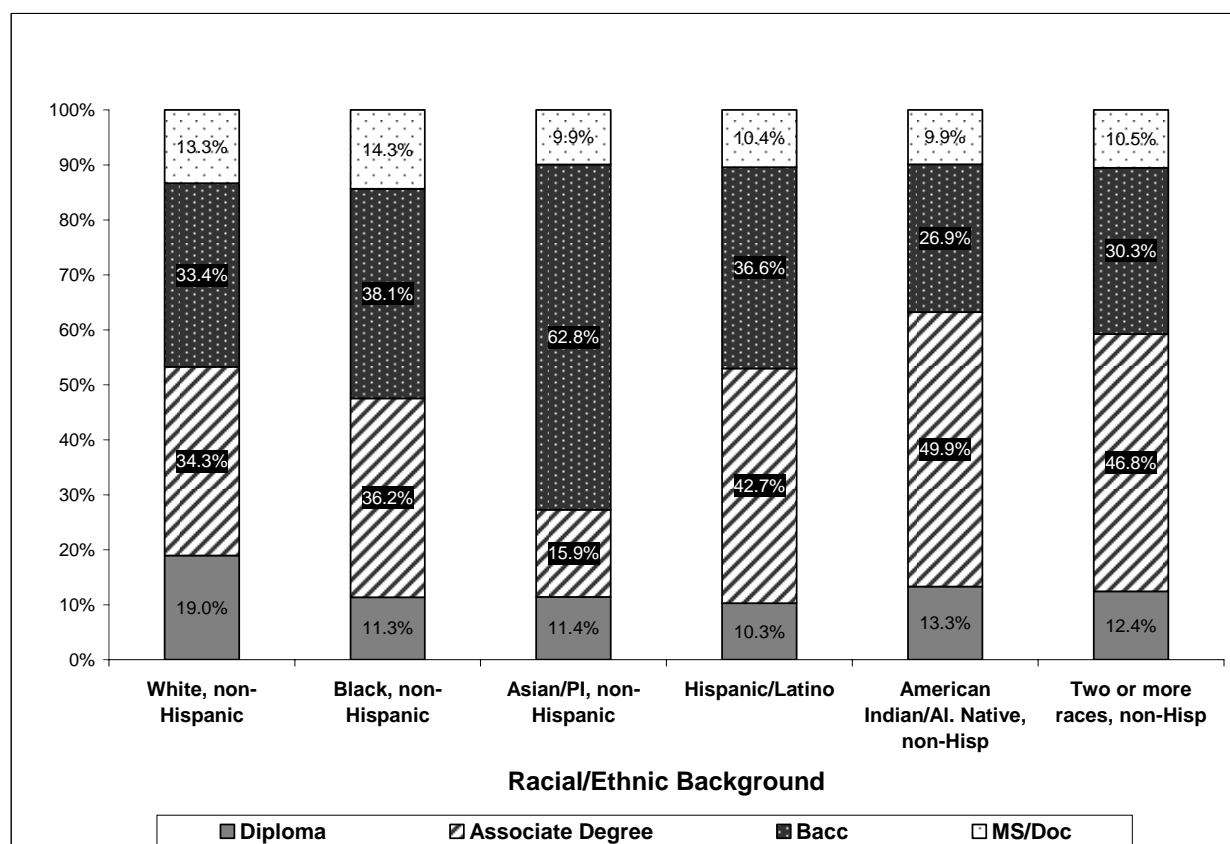
**Chart 7. Actual and "Real" Average Annual Salaries of Full-Time Registered Nurses**



### **Racial/Ethnic Background and Highest Educational Preparation**

In March 2004, 62.8 percent of RNs who were estimated to be Asian/Native Hawaiian/Pacific Islander, non-Hispanic graduated from baccalaureate programs. However, when both the initial and the post-RN education are taken into account, Asian/Native Hawaiian/Other Pacific Islanders (non-Hispanic) and Black, non-Hispanic RNs were more likely than either Hispanics or White, non-Hispanic RNs to attain at least baccalaureate preparation. Among Black, non-Hispanic RNs, 14.3 percent were estimated to have their highest preparation at the master's or doctorate level compared to 13.3 percent among White, non-Hispanics, 10.4 percent among Hispanics, and 9.9 percent among Asian/Native Hawaiian/Pacific Islander, non-Hispanic nurses (Chart 8).

**Chart 8. Distribution of Registered Nurses in Each Racial/Ethnic Group by Highest Nursing-Related Educational Preparation, March 2004**



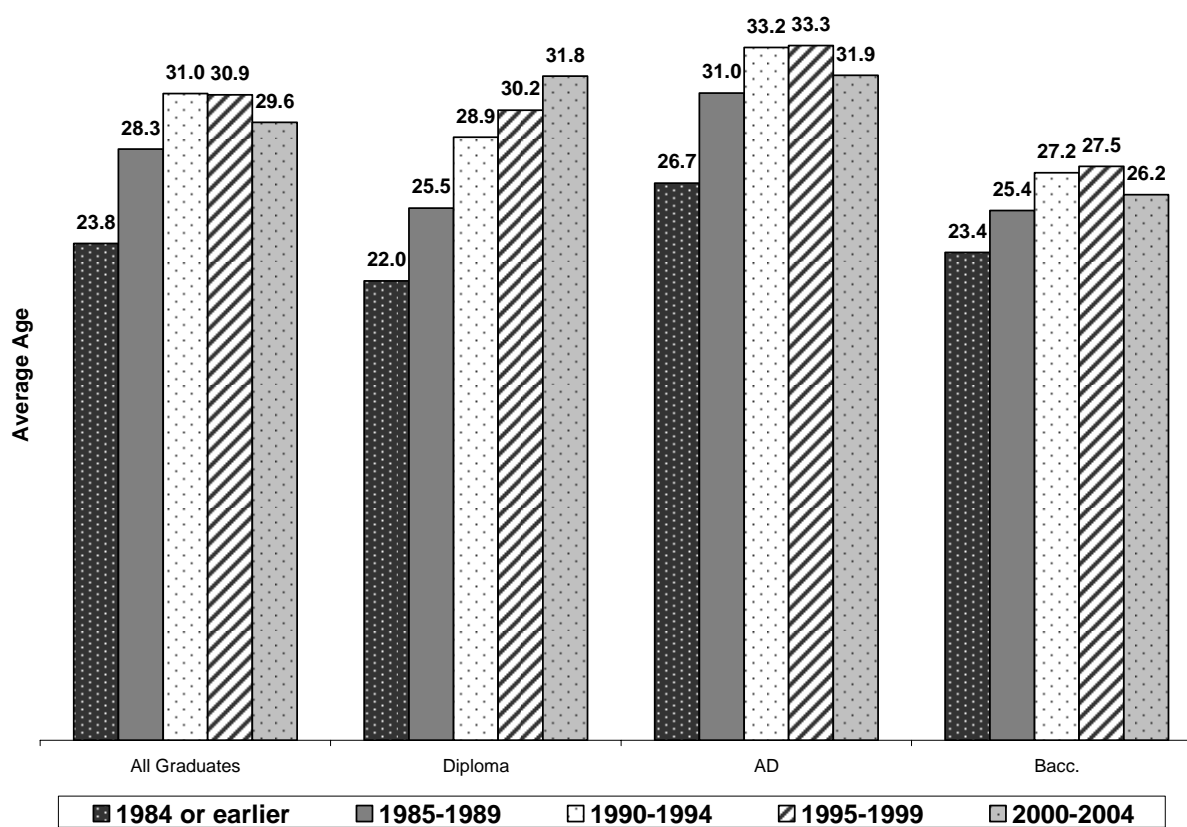
### Age at Graduation from Initial Nursing Education Programs

The average age at graduation for recent RN graduates appears to be slightly lower than in 2000. The average age at graduation for RNs during the 5 years prior to the survey was 29.6 years for the 2004 survey compared to 30.5 years in the 2000 survey; however, RNs who graduated between 1995 and 1999 in the 2004 survey were 30.9 years of age at graduation.

When the distribution of age at graduation is observed by age groups, the indication that graduates from initial education programs in more recent years are younger becomes clearer. In the 2004 survey, 39.2 percent of those graduating between 2000 and 2004 were under 25 compared to 31 percent of RNs under age 25 who completed their initial education between 1990 and 1999. Complementing this increase in younger graduates, 29.5 percent of nurses who completed their initial education between 1990 and 1999 were in the 35 to 49 age interval, but only 20.9 percent of RNs completing their initial education programs between 2000 and 2004 were in the 35 to 49 year age interval.

The average age at graduation from initial nursing programs varied by the type of program. Graduates of associate degree programs tend to be older, as are recent diploma graduates. For the 5-year period before the March 2004 survey, the average age of diploma graduates was 31.8 years; associate degree graduates averaged 31.9 years and baccalaureate graduates averaged 26.2 years (Chart 9).

**Chart 9. Average Age at Graduation from Initial Nursing Education Programs.**



Average age at graduation from the initial nursing program varied by the race/ethnic background of the nurse. The average age of graduation from diploma programs for Hispanic RNs was estimated to be 24.3 years compared to 22.7 years for White, non-Hispanic; 23.5 years for non-Hispanic Asian/Pacific Islanders; and 26.7 for Black, non-Hispanics. In baccalaureate programs, non-Hispanic Asian/Pacific Islanders tend to be younger, on average, compared to White, non-Hispanics (23.3 compared to 25.1) and to Black, non-Hispanics (27.1 years) or to Hispanics (26 years). Black, non-Hispanic RNs were older, on average, than other groups when they completed a master's degree as their initial nursing program (34.9 years compared to 30.1 for Hispanics; 27.7 for Whites, non-Hispanics; and 27.6 years for Asian, Pacific Island, non-Hispanics).

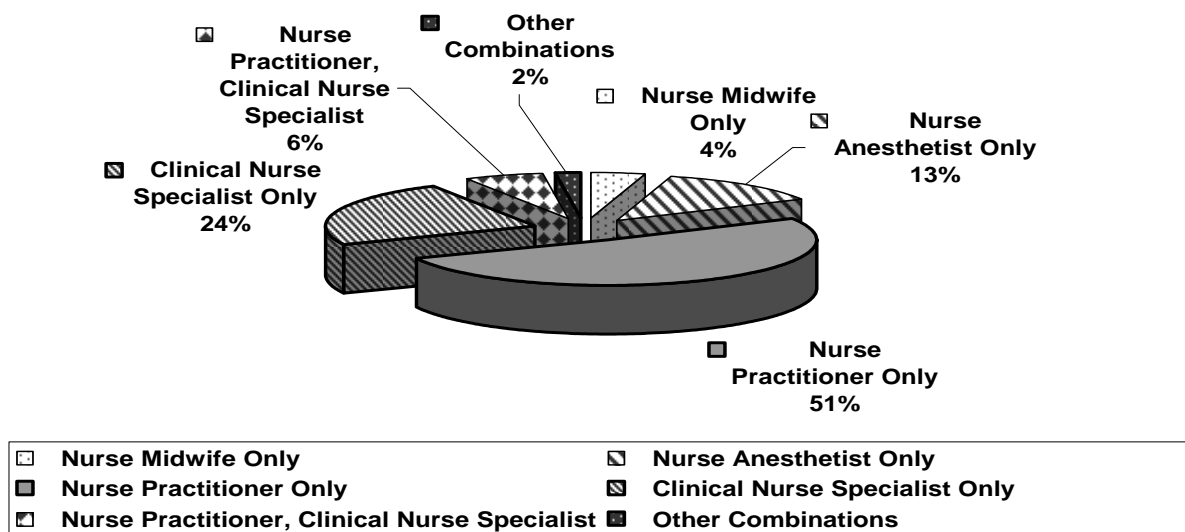
### Additional Nursing Education Preparation

About 23.1 percent of the RN population in 2004 or an estimated 671,883 RNs completed additional academic nursing or nursing-related preparation after they graduated from their initial nursing education. Of the 1,227,256 RNs initially prepared in associate degree programs, 20.7 percent or an estimated 253,453 of the nurses (i.e., 8.7 percent of all RNs) obtained additional nursing-related degrees. Of the 733,377 RNs initially prepared in diploma programs, 30.2 percent or an estimated 221,608 (i.e., 7.8 percent of all RNs) obtained post-RN nursing or nursing-related degrees. In addition, of the 887,223 RNs initially prepared in baccalaureate programs, 22.2 percent or an estimated 196,639 (i.e., 6.8 percent of all RNs) subsequently received masters or doctorate nursing-related degrees.

## Advanced Practice Nurses

Advanced practice nurses (APN) include clinical nurse specialists, nurse anesthetists, nurse midwives, and nurse practitioners. In March 2004, the number of RNs prepared to practice in at least one advanced practice role was estimated to be 240,461, or 8.3 percent of the total RN population, compared to an estimated 196,000, or 7.3 percent estimated from the 2000 Survey. As noted in Chart 10, the largest group among the advanced practice nurses was nurse practitioners, followed by the clinical nurse specialists. These two groups together, including those with dual or multiple training as a nurse practitioner, clinical nurse specialist, nurse midwife, and/or or nurse anesthetist, comprised over 199,000 nurses, or 82.8 percent of all advanced practice nurses.

**Chart 10. Registered Nurses Prepared for Advanced Practice, March 2004**



## Nurse Practitioners

Nurse Practitioners (NPs) included RNs prepared beyond initial nursing education in an NP program of at least 3 months. In March 2004, there were an estimated 141,209 RNs with credentials as NPs, indicating an estimated increase of 38,560 NPs from 2000. About 65.5 percent of NPs had completed a master's degree program and an additional 10.5 percent had a post-masters certificate as their NP preparation. An estimated 87.7 percent of NPs were employed in nursing, with 65.7 percent of NPs employed in nursing reporting the position title as "Nurse Practitioner." Of the nurses who were NPs by training, 74.8 percent reported being currently certified by a national organization in an APN specialty.

## **Clinical Nurse Specialists**

Clinical nurse specialists (CNS) were defined in this survey as RNs who had formal clinical preparation resulting in a master's degree. The estimated number of CNSs increased from 69,071 in 2000 to 72,521 in 2004. These estimates include RNs who have CNS preparation alone or in combination other APN specialty preparation. The vast majority of prepared CNSs, 93.3 percent, received their CNS award through a master's program, with an additional 3.8 percent of CNSs prepared through a post-master's certificate.

About 85.1 percent of the prepared CNSs were employed in nursing; however, only 16.5 percent were practicing with the position title of "Clinical Nurse Specialist." About 16 percent of the CNSs were estimated to be in nursing education positions and the remaining CNSs reported a variety of position titles.

## **Nurse Practitioner/Clinical Nurse Specialist**

The estimated number of RNs prepared as both NPs and CNSs was about the same as in 2000, with 14,643 NP/CNSs estimated in March 2000 and 14,689 estimated in March 2004. RNs prepared as both NPs and CNSs were more than 10 times more likely to function in the NP role than in the CNS role, as indicated by position title.

## **Nurse Anesthetist**

The third largest group of RNs who indicated APN preparation were nurse anesthetists. The number of nurse anesthetists estimated in March 2004 was 32,523 compared to 29,844 in 2000. While 37.2 percent of the nurse anesthetists had received their educational nurse anesthetist preparation through a master's program, 58.0 percent received their education preparation through a post-RN certificate. In 2004, 89.6 percent of the nurse anesthetists were employed in nursing; 82.3 percent of the employed nurse anesthetists held the position title of "Nurse Anesthetist." Of those who were prepared as nurse anesthetists, 93.1 percent were estimated to be currently certified in an APN specialty by a national organization.

## **Nurse Midwives**

In March 2004, there were an estimated 13,684 RNs formally prepared as nurse midwives compared to 9,232 in 2000. While 56.5 percent of these RNs received their educational preparation in this specialty through a master's program and an additional 5.8 percent through a post-masters certificate, 36.9 percent were estimated to have received their nurse midwife preparation through a certificate program. Of those prepared as nurse midwives, 89.3 percent were employed in nursing in 2004 compared to 85.7 percent in 2000. An estimated 57.6 percent of the nurse midwives employed in nursing in 2004 identified their position title as nurse midwife. Of the RNs who were prepared as nurse midwives, an estimated 93.7 percent are currently being certified in an APN specialty by a national organization.

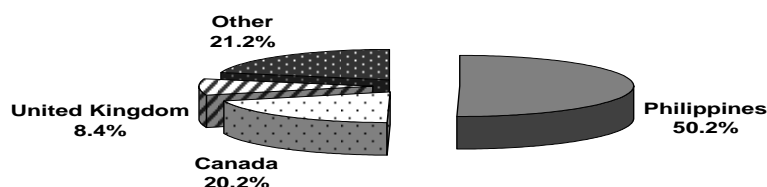
## **Foreign-Educated Nurses**

The 2004 survey estimates that 3.5 percent of the RNs practicing in the United States (100,791) received their basic nursing education outside the United States, not including the 0.3 percent (an

estimated 9,687) who received their initial nursing education in Guam, Puerto Rico, the U.S. Virgin Islands or in unspecified States and territories.<sup>3</sup> This percentage was about the same as in the 2000 survey. The main countries where the highest number of these RNs received their education were: Philippines (50.2 percent of foreign-educated RNs) and Canada (20.2 percent). A much smaller percent of RNs received their basic nursing education in other countries such as the United Kingdom (8.4 percent), followed at a distance by Nigeria (2.3), Ireland (1.5), India (1.3), Hong Kong (1.2), Jamaica (1.1), Israel (1.0), and South Korea (1.0). An additional 12 percent of RNs received their training in 47 other countries. In contrast, in 2000, the Philippines (43 percent of foreign-educated nurses), Canada (16 percent), United Kingdom (8 percent), and India (10 percent) were the main countries of origin for foreign-educated nurses.

Foreign-educated nurses listed all 50 States and the District of Columbia as the location of the principal nursing position in the 2004 survey. The five States estimated to have the largest number of foreign-educated RNs were: California (25.5 percent), Florida (9.6 percent), New York (9.3 percent), Texas (6.7 percent), and New Jersey (6.1 percent). An additional 10.8 percent of foreign-educated RNs did not indicate a State of their principal nursing position.

**Chart 11. Country of Origin for Foreign-Educated RNs in 2004**



Although their initial nursing education was outside the United States, over half of the foreign-educated RNs were estimated to have baccalaureate or higher degrees (59.9 percent), two percent of whom have doctorate degrees. Over two percent of foreign-educated nurses in the 2004 survey (an estimated 2,446) were APNs, 65.8 percent of whom are NPs, another 13.1 percent are CNSs, 11.1 percent are NP/CNS, and 10 percent are NMs.

Not surprisingly, about 68.5 percent of foreign-educated RNs speak at least one language other than English, most often Filipino (47.9 percent of foreign-educated RNs). Over half of the foreign-educated nurses (54.7 percent) speak only one language other than English, 12.1 percent speak two languages, and 1.6 percent speaks three or more languages. A large number (4.3 percent) speak Spanish, and almost equal numbers speak French or an Asian language other than Filipino (3.7 percent and 3.6 percent, respectively).

<sup>3</sup> Information about where RNs received their basic nursing education is unknown for 3.2 percent of RNs. Information in 2004 may differ slightly from that reported in 2000 because Guam, Puerto Rico, the U.S. Virgin Islands, and unspecified States or territories are excluded from the 2004 analysis.



Similarly, the racial/ethnic background of foreign-educated RNs differs somewhat from that of the general RN population. Over 50 percent are estimated to be non-Hispanic Asian/Pacific Islanders, including Filipinos, but 31.3 percent are White, non-Hispanic, 6.7 percent are Black, non-Hispanic, and 2.1 percent are estimated to be Hispanic. In addition, the racial/ethnic background of 9.2 percent of the foreign-educated nurses was unspecified.

### **Registered Nurses Residing and Licensed in COMPACT States**

By 2004, a total of 17 States had an arrangement, called a “Compact” such that RNs who are living and licensed in one Compact State, can practice in other Compact States without needing additional license(s). An estimated 22.9 percent of RNs resided and were licensed in Compact States.<sup>4</sup> The five States with the most nurses covered by Compacts and reporting the State as their principal nursing position are: Texas (21.4 percent of the 665,593 nurses in Compacts), North Carolina (11.1 percent), Tennessee (7.9 percent), Wisconsin (7.6 percent), Maryland (6.5 percent), Arizona (5.6 percent), and Iowa (4.8 percent).

### **Registered Nurses in Nursing Faculty Positions**

One issue that has received considerable attention in recent years is the shortage of nurses in faculty positions. The 2004 NSSRN defined the principal nursing position as a faculty position if a RN was teaching RNs in diploma, associate, baccalaureate, and/or higher degree programs. It is estimated that the principal nursing position of 48,666 RNs in March 2004 was as nursing faculty. Of these nurses, 11 percent were faculty in diploma programs, 40.1 percent were faculty in associate degree programs, and 48.8 percent were in baccalaureate and/or higher degree programs. The average age of faculty nurses was 46.8 years, but the estimated average age of faculty nurses with doctorates in nursing or a related field was 55.7 years. However, the age group with the highest percent of faculty was the 50 to 54 year age group with 21.4 percent of faculty in this age group. An additional 25.4 percent were in the age groups 40 to 50 and 12.1 percent of RNs in faculty positions were in the age group 25 to 34 years. Although only 19.6 percent of faculty nurses were in the under 40 age group, 30.1 percent were over age 55.

### **Satisfaction with Nursing Positions**

The 2004 survey also examined job satisfaction and reasons for not working in nursing or for changing positions. Of the nurses currently employed in nursing, it was estimated that about 78 percent were satisfied (that is, about 27 percent were estimated to be extremely satisfied with their principal nursing position and 50.5 percent moderately satisfied). Only 13.8 percent of nurses employed in nursing were dissatisfied (2.9 percent extremely dissatisfied and 10.9 percent moderately dissatisfied).

The NSSRN also gathered information about the number of employed RNs who changed positions. The majority of RNs currently employed in nursing are in the same position as they were in the previous year (72.4 percent or 1,760,620) and another 6.4 percent (155,362) were in a different position but with the same employer; another 11.4 percent (276,329) were with a different employer as the previous year. The majority of these nurses were moderately satisfied

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<sup>4</sup>For 12.8 percent of nurses, Information is not available to determine whether they are working under the Compact agreement.

(51 percent) or extremely satisfied (27.6 percent) with their principal nursing position); only 2.6 percent were estimated to be moderately or extremely dissatisfied with their positions. In addition, of the nurses who changed positions and employers, 73.2 percent (202,353) were satisfied with their current position (47.5 percent were moderately satisfied and 25.7 percent were extremely satisfied).

Of the estimated 14 percent of RNs (488,006) who are not working in nursing and allowing for multiple responses, RNs or 49.3 percent were estimated to have left nursing for personal or family reasons, 49.5 percent for personal career reasons, 42.7 percent for reasons connected with the workplace, and 33.8 percent for retirement.

### **Geographic Distribution of the Registered Nurse Population**

Tables A and B provide estimates for the number of RNs living and employed by State and geographic area of the United States. In March 2004, the New England area of the country had the highest concentration of employed RNs in relation to the area's population, 1,107 employed RNs per 100,000 population. The West North Central area had the next greatest concentration with 1,026 employed RNs per 100,000 population. The West South Central area had one of the lowest concentrations, 677 RNs per 100,000 population. However, the Pacific area, with 645 employed RNs per 100,000 population, had a lower ratio than the West South Central.

Specific State data are provided in Tables A and B. Table A provides information on the registered nurses population in each State and area by activity status, March 2004. Table B provides information on the supply of registered nurses in each State and area according to whether employed on a full-time or part-time basis, March 2004.

**Table A. Registered Nurse Population in Each State and Geographic Area by Activity Status: March 2004**

State and Geographic Area	Number in sample	Estimated Total*	Employed in nursing		Not employed in nursing		Employed nurses per 100,000 population**
			Number	Percent	Number	Percent	
United States	35,636	2,909,467	2,421,458	83.2	488,004	16.8	825
New England	3,492	189,494	157,676	83.2	31,818	16.8	1,107
Connecticut	597	42,894	32,718	76.3	10,175	23.7	934
Maine	540	17,785	15,077	84.8	2,708	15.2	1,145
Massachusetts	937	89,358	75,398	84.4	13,960	15.6	1,175
New Hampshire	464	18,473	16,670	90.2	1,803	9.8	1,283
Rhode Island	521	13,847	11,368	82.1	2,479	17.9	1,052
Vermont	433	7,137	6,444	90.3	693	9.7	1,037
Middle Atlantic	3,405	472,167	374,201	79.3	97,966	20.7	928
New Jersey	685	92,425	72,980	79.0	19,445	21.0	839
New York	1,418	215,309	174,208	80.9	41,101	19.1	906
Pennsylvania	1,302	164,433	127,013	77.2	37,420	22.8	1,024
South Atlantic	6,149	541,752	446,850	82.5	94,902	17.5	810
Delaware	522	9,352	8,633	92.3	718	7.7	1,040
Dist. of Columbia	365	12,118	11,583	95.6	535	4.4	2,093
Florida	1,368	169,460	132,758	78.3	36,702	21.7	763
Georgia	700	78,898	66,512	84.3	12,386	15.7	753
Maryland	728	53,061	47,124	88.8	5,937	11.2	848
North Carolina	771	92,391	76,761	83.1	15,630	16.9	899
South Carolina	606	35,204	30,711	87.2	4,493	12.8	732
Virginia	719	73,526	56,726	77.2	16,800	22.8	760
West Virginia	370	17,742	16,042	90.4	1,700	9.6	884

State and Region	Number in sample	Estimated Total*	Employed in nursing		Not employed in nursing		Employed nurses per 100,000 population**
			Number	Percent	Number	Percent	
East South Central	2,210	175,434	152,517	86.9	22,917	13.1	872
Alabama	542	42,894	36,538	85.2	6,356	14.8	806
Kentucky	529	42,971	37,631	87.6	5,340	12.4	908
Mississippi	549	27,303	24,009	87.9	3,294	12.1	827
Tennessee	590	62,266	54,338	87.3	7,927	12.7	921
West South Central	2,897	260,903	225,252	86.3	35,651	13.7	677
Arkansas	578	23,818	20,115	84.5	3,703	15.5	731
Louisiana	477	39,449	35,369	89.7	4,080	10.3	783
Oklahoma	570	29,268	24,433	83.5	4,835	16.5	694
Texas	1,272	168,368	145,336	86.3	23,032	13.7	646
East North Central	4,226	501,293	417,855	83.4	83,438	16.6	908
Illinois	1,034	138,092	113,779	82.4	24,313	17.6	895
Indiana	615	64,396	54,624	84.8	9,772	15.2	876
Michigan	856	103,697	84,967	81.9	18,730	18.1	840
Ohio	1,106	133,064	112,806	84.8	20,258	15.2	984
Wisconsin	615	62,044	51,679	83.3	10,365	16.7	938
West North Central	4,533	232,648	202,106	86.9	30,542	13.1	1,026
Iowa	691	37,777	32,664	86.5	5,113	13.5	1,106
Kansas	687	29,892	24,869	83.2	5,023	16.8	909
Minnesota	813	60,214	51,914	86.2	8,300	13.8	1,018
Missouri	683	66,551	57,365	86.2	9,186	13.8	997
Nebraska	548	20,026	18,532	92.5	1,493	7.5	1,061
North Dakota	584	7,966	7,484	93.9	482	6.1	1,180

State and Region	Number in sample	Estimated Total*	Employed in nursing Number	Percent	Not employed in nursing Number	Percent	Employed nurses per 100,000 population**
South Dakota	527	10,223	9,278	90.8	945	9.2	1,204
Mountain	4,648	166,388	137,980	82.9	28,408	17.1	697
Arizona	583	48,284	39,136	81.1	9,148	18.9	681
Colorado	709	43,719	34,654	79.3	9,065	20.7	753
Idaho	561	11,068	8,753	79.1	2,315	20.9	628
Montana	610	9,416	7,914	84.0	1,502	16.0	854
Nevada	559	16,206	14,095	87.1	2,111	13.0	604
New Mexico	469	15,027	13,570	90.3	1,457	9.7	713
Utah	655	18,169	15,778	86.8	2,391	13.2	660
Wyoming	502	4,498	4,079	90.7	419	9.3	805
Pacific	4,076	369,388	307,023	83.1	62,365	16.9	645
Alaska	494	7,567	6,777	89.6	790	10.4	1,034
California	1,852	255,968	211,640	82.7	44,327	17.3	590
Hawaii	529	11,146	9,335	83.8	1,811	16.2	739
Oregon	503	34,946	30,850	88.3	4,096	11.7	858
Washington	698	59,761	48,421	81.0	11,340	19.0	780

\* Estimated numbers may not add to totals and percents to 100 because of weighting and rounding.

\*\* Population data were based on July 1, 2004 estimates of resident population of States from Census Bureau (NST-EST2004-01).

**Table B. Supply of registered nurse in each State and Area according to whether employed on a full-time or part-time basis: March 2004**

State and Region	Number in Sample	Total Estimated Number	Percent	Employed full-time Estimated Number	Percent	Employed part-time Estimated Number	Percent	Estimated Full-time Equivalent*
United States	30,234	2,421,458**	100.0	1,696,916	70.1	720,283	29.7	2,057,058
+								
New England	2,974	157,676	100.0	95,844	60.8	61,592	39.1	126,640
Connecticut	463	32,718	100.0	20,751	63.4	11,894	36.4	26,698
Maine	459	15,077	100.0	10,552	70.0	4,493	29.8	12,798
Massachusetts	794	75,398	100.0	43,384	57.5	31,906	42.3	59,337
New Hampshire	428	16,670	100.0	10,666	64.0	6,005	36.0	13,668
Rhode Island	428	11,368	100.0	6,924	60.9	4,418	38.9	9,133
Vermont	402	6,444	100.0	3,567	55.4	2,877	44.6	5,006
Middle Atlantic	2,704	374,201	100.0	257,523	68.8	115,465	30.9	315,256
New Jersey	541	72,980	100.0	46,542	63.8	26,297	36.0	59,690
New York	1,148	174,208	100.0	123,892	71.1	49,522	28.4	148,653
Pennsylvania	1,015	127,013	100.0	87,089	68.6	39,646	31.2	106,912
South Atlantic	5,183	446,850	100.0	334,833	74.9	111,229	24.9	390,448
Delaware	479	8,633	100.0	5,755	66.7	2,878	33.3	7,194
Dist. of Columbia	345	11,583	100.0	8,804	76.0	2,779	24.0	10,194
Florida	1,073	132,758	100.0	102,542	77.2	29,810	22.5	117,447
Georgia	594	66,512	100.0	51,322	77.2	15,175	22.8	58,910
Maryland	639	47,124	100.0	32,327	68.6	14,796	31.4	39,725
North Carolina	641	76,761	100.0	59,298	77.3	17,463	22.7	68,030
South Carolina	534	30,711	100.0	23,131	75.3	7,579	24.7	26,920
Virginia	545	56,726	100.0	39,447	69.5	16,913	29.8	47,904
West Virginia	333	16,042	100.0	12,207	76.1	3,835	23.9	14,124

East South Central	1,932	152,517	100.0	118,072	77.4	34,235	22.4	135,190
Alabama	464	36,538	100.0	27,094	74.2	9,284	25.4	31,736
Kentucky	466	37,631	100.0	29,239	77.7	8,392	22.3	33,435
Mississippi	482	24,009	100.0	19,575	81.5	4,385	18.3	21,768
Tennessee	520	54,338	100.0	42,165	77.6	12,174	22.4	48,252
West South Central	2,500	225,252	100.0	178,036	79.0	47,115	20.9	201,594
Arkansas	489	20,115	100.0	16,521	82.1	3,594	17.9	18,318
Louisiana	428	35,369	100.0	28,996	82.0	6,373	18.0	32,182
Oklahoma	483	24,433	100.0	18,971	77.6	5,360	21.9	21,651
Texas	1,100	145,336	100.0	113,548	78.1	31,787	21.9	129,442
East North Central	3,521	417,855	100.0	278,038	66.5	139,083	33.3	347,580
Illinois	849	113,779	100.0	77,462	68.1	36,055	31.7	95,490
Indiana	521	54,624	100.0	38,729	70.9	15,895	29.1	46,676
Michigan	699	84,967	100.0	56,640	66.7	27,980	32.9	70,630
Ohio	940	112,806	100.0	74,979	66.5	37,701	33.4	93,830
Wisconsin	512	51,679	100.0	30,228	58.5	21,451	41.5	40,954
West North Central	4,011	202,106	100.0	135,260	66.9	66,768	33.0	168,644
Iowa	598	32,664	100.0	22,237	68.1	10,427	31.9	27,450
Kansas	583	24,869	100.0	17,829	71.7	6,998	28.1	21,328
Minnesota	703	51,914	100.0	28,994	55.9	22,920	44.1	40,454
Missouri	591	57,365	100.0	40,983	71.4	16,381	28.6	49,174
Nebraska	506	18,532	100.0	13,447	72.6	5,086	27.4	15,990
North Dakota	552	7,484	100.0	5,297	70.8	2,187	29.2	6,390
South Dakota	478	9,278	100.0	6,472	69.8	2,769	29.8	7,856
Mountain	3,968	137,980	100.0	101,042	73.2	36,718	26.6	119,401
Arizona	478	39,136	100.0	31,115	79.5	7,841	20.0	35,036
Colorado	570	34,654	100.0	23,882	68.9	10,772	31.1	29,268
Idaho	451	8,753	100.0	6,049	69.1	2,704	30.9	7,401
Montana	512	7,914	100.0	5,126	64.8	2,788	35.2	6,520
Nevada	503	14,095	100.0	11,371	80.7	2,724	19.3	12,733
New Mexico	424	13,570	100.0	10,083	74.3	3,456	25.5	11,811

Utah	573	15,778	100.0	10,333	65.5	5,445	34.5	13,056
Wyoming	457	4,079	100.0	3,083	75.6	988	24.2	3,577
Pacific	3,441	307,023	100.0	198,268	64.6	108,078	35.2	252,307
Alaska	444	6,777	100.0	4,921	72.6	1,836	27.1	5,839
California	1,541	211,640	100.0	139,406	65.9	71,771	33.9	175,292
Hawaii	440	9,335	100.0	6,620	70.9	2,715	29.1	7,978
Oregon	446	30,850	100.0	18,140	58.8	12,638	41.0	24,459
Washington	570	48,421	100.0	29,181	60.3	19,117	39.5	38,740

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\*\* includes an estimated 4,261 nurses whose employment status was not known.

\* nurses working full-time plus one-half of working part-time