

Nursing Education in Five States

2005



The Importance of State
Appropriations to Sustain Nursing
School Capacity in States with
Acute Nurse Shortages



INTRODUCTION

PROJECT GOALS AND DESIGN

OVERVIEW OF THE REPORT

States are taking various steps to stem the tide of a worsening nurse shortage. This report examines the different ways States are funding and otherwise assisting nursing education programs and the extent to which State aid is helping to expand the nursing workforce and keep up with current and future demand.

States are not alone, however, in this effort. The Federal government, health care employers, educational institutions and others are working to close the gap. States play a prominent role in shaping the workforce, since they are responsible for the following:

- Financing and governing health professions education;
- Licensing and regulating health professions practice and private health insurance;
- Purchasing services and paying providers under the Medicaid program; and
- Designing a variety of subsidy and regulatory programs to provide incentives for health professionals to choose certain specialties and practice locations.¹

This report assesses the nursing pipeline in five States—California, Georgia, Indiana, Texas and Utah—and examines the strategies the States are pursuing to expand their nursing workforce. Specifically, the report examines the following:

- **Supply of nurses, including those in the nursing pipeline and those currently in the workforce.** Chapter One includes comparative data on the pipeline—including applications, enrollment and graduation trends—as well as the current nursing workforce. Together, these two components comprise the current and future nursing supply.
- **State support and funding strategies for nursing programs, including State appropriations, grants and other forms of State aid.** Chapter Two describes trends in State funding of higher education and examines State aid and its effect on the nursing pipeline.
- **Policy options in place in the five focus States, as well as promising practices in other States.** Chapter Three analyzes various policy options aimed at alleviating the nurse shortage. In addition, this section summarizes policy recommendations by prominent organizations and experts in the field.

In sum, the report examines the relationship between State aid—in its various forms—and workforce development in five States. The objective is to create options and strategies to help States and their partners in the public and private sectors to more effectively address nurse shortages.

STUDY METHODOLOGY

SELECTION OF STATES

The National Conference of State Legislatures (NCSL) worked with staff from the United States Department of Health and Human Services, (HHS) Health Resources and Services Administration (HRSA) and an expert advisory panel to select five States. The method for selecting States included, but was not limited to, the following criteria:

- States in the lowest quartile of all States for the number of nurses per capita; (Indiana was the only State that ranked above the bottom quartile)
- States that have a majority of public nursing schools;
- States with a mix of school sizes and degree programs; and
- States that are geographically dispersed. Every selected State is located in a different region.

DATA COLLECTION

NCSL used the following data collection methods:

- Site visit interviews with nursing program representatives and others. These interviews provided quantitative and qualitative information about State financing of nursing education programs, training program capacity and other factors;
- Analysis of National and State-level data collected from organizations such as the National League for Nursing, the American Association of Colleges of Nursing and HRSA's Bureau of Health Professions (BHP);
- Analysis of interviews and focus groups during the one-day summit of nurse educators and State policymakers;
- Phone and e-mail communications with nursing program and higher education officials to define key funding strategies;
- Other recent data, reports and presentations from online sources; and
- Guidance from the expert advisory panel.

INTRODUCTION: SNAPSHOT OF NURSING WORKFORCE ISSUES

The nurse shortage that already has impacted many areas is estimated to worsen in the coming years. The Bureau of Labor Statistics (BLS) estimates that, by 2020, the nation will have a shortfall of up to one million nurses, which includes new jobs and “replacement” jobs that are open when today’s nurses retire and leave the field.² Moreover, the BLS estimates that the demand for nurses will increase at almost twice the rate of all occupations between 2000 and 2010.

Aside from answering the basic question of who will care for us in the future, policymakers and others are engaged in the issue for other reasons, including growing evidence that demonstrates a link between nurse staffing levels and quality of care and health outcomes. Recent research concludes the following about nurse staffing.

- One-fourth of all unexpected events leading to patient death, injury or permanent loss of function are the result of inadequate staffing, according to a 2002 report by the Joint Commission on Accreditation of Healthcare Organizations.³
- The risk of hospital deaths would increase by 31 percent—or roughly 20,000 avoidable deaths each year—if all hospitals staffed eight patients per nurse instead of four, according to a 2002 study published in the *Journal of the American Medical Association*. Moreover, the odds of nurse burnout increased with an increased number of patients.⁴
- Improved RN staffing cut down on pneumonia, urinary infections, cardiac arrest, shock and other adverse health outcomes, according to a 2002 study published in the *New England Journal of Medicine*.⁵

The reasons for the nurse shortage are complex and belie a simple solution. Demographic changes—chief among them a rapidly aging population—are driving demand. During the next 25 years, the over-age-65 population will increase at five times the rate of those under age 65. Moreover, the fastest growing population group is the over-85 segment. Advancements in technology and medical treatment are helping people live longer, often with chronic conditions that require nursing care.⁶

According to the U.S. General Accounting Office, between 2000 and 2030, the number of women between the ages of 24 and 54, traditionally the foundation of the nurse workforce, is not expected to change, while the over-65 population will double. Compounding this problem is the fact that the nursing profession itself is growing older and nearing retirement and the number of new, replacement nurses is not sufficient to fill the gaps. The average age of RNs is 45 years, and among nurse educators the mean age is almost 52 years. The implications are serious, with 75 percent of current faculty expected to retire by 2019.⁷ This shortfall of educators prohibits nursing programs from accepting the number of nursing students needed to meet tomorrow’s needs. In 2004, the American Association of Colleges of Nursing reported that schools across the country turned away more than 26,000 qualified applicants, primarily due to faculty shortages.⁸

Finally, as they address the nurse shortages, many States and educational institutions are scrambling to reverse years of declining applications, enrollments and graduates from nursing programs.

In short, demand for health care services is increasing faster than the supply of the health care workforce, particularly in high-demand professions such as nursing. Although interest in nursing education is on the rise—as seen in increased applications and enrollment (see Chapter One)—there are still too few nurses entering the pipeline to meet future demand. Moreover, in the midst of a worsening faculty shortage, it is a daunting task to expand nursing programs' capacity.

In response, policymakers, along with health care employers, researchers and others, are attempting to stem the tide by increasing the supply and improving the distribution of qualified nurses. Despite the numerous challenges facing them, States and their partners in the private and academic sectors are, indeed, making progress, offering hope that prudent policy and funding decisions can help to alleviate this potential crisis. This report examines the interaction between supply and demand in five States and analyzes the effect that State policies and funding have on expanding the nursing pipeline to meet tomorrow's needs.

1. U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, *The Health Care Workforce in Ten States: Education, Practice and Policy* (Washington, D.C.: HRSA, 2001).

2. Georgia Department of Community Health, *What's Ailing Georgia's Health Care Workforce?*, a report prepared by the Healthcare Workforce Policy Advisory Committee (Atlanta: GDCH, August 2002).

3. Joint Committee on Accreditation of Healthcare Organizations, *Healthcare at the Crossroads: Strategies for Addressing the Evolving Nursing Crisis* (Washington, D.C.: JCAHO, 2002).

4. Linda H. Aiken, et al., "Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction," *Journal of the American Medical Association* 288, no. 16 (October 23, 2002): 1987-1993.

5. Jack Needleman, Peter Buerhaus, Soeren Mattke, Maureen Steward and Katya Zelevinsky, "Nurse Staffing Levels and the Quality of Care in Hospitals," *New England Journal of Medicine* 346, no. 22 (May 30, 2002):1715-1722.

6. Indiana Nursing Workforce Development Steering Group, *The Nursing Workforce Shortage in Indiana: Current Status and Future Trends* (Indianapolis: Indiana Nursing Workforce Development Steering Group, 2002).

7. U.S. General Accounting Office, *Emerging Nurse Shortage* (GAO-01-944)(Washington, D.C.: U.S. GAO, July 2001).

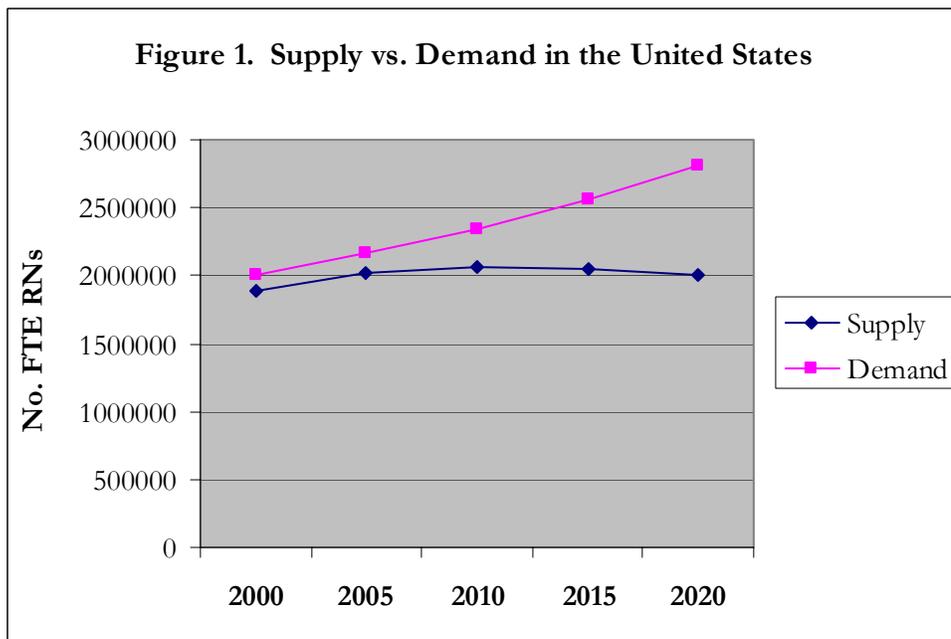
8. American Association of Colleges of Nursing, *Enrollment Increases at U.S. Nursing Schools are Moderating While Thousands of Qualified Students Are Turned Away*, Press Release, December 15, 2004, <http://www.aacn.nche.edu/Media/FactSheets/DegreeCompletionProg.htm>.

1. THE NURSING PIPELINE

The supply of the nursing workforce is the sum of nurses in the pipeline—including students enrolled in nursing programs in the United States and abroad—and current nurses in the workforce. The current supply of nurses is not meeting today’s demand, and the gap is expected to worsen in the years to come. To bolster the supply to meet current and future demand, policymakers, health care employers and educators are adopting various strategies, with most efforts focusing on the difficult task of expanding the capacity of nursing programs to admit sufficient numbers of nursing students. This chapter examines the nursing education pipeline and determines the extent to which the five focus States are prepared to meet tomorrow’s demand.

DEMAND PROJECTIONS

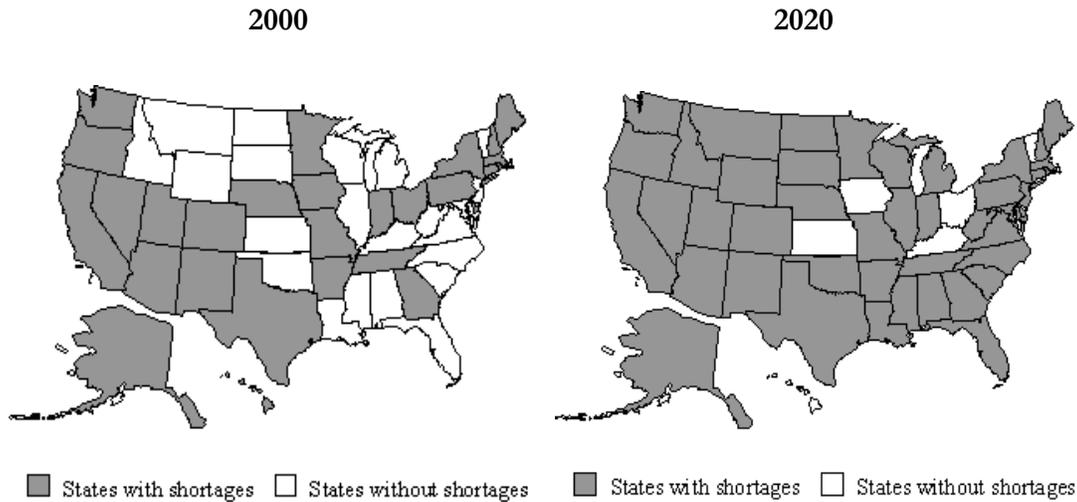
The demand for registered nurses across the country will outpace supply through 2020, the BHPPr predicts.¹ A 7 percent shortfall nationally of Registered Nurses (RNs) in 2005 is expected to jump to nearly 30 percent by 2020, translating into a shortage of more than 800,000 nurses nationally (figure 1). Among the factors driving demand are a rapidly growing population—with much of the growth occurring in the elderly population—and medical advances that increase the need for nurses.²



Source: Health Resources and Services Administration, Bureau of Health Professions, 2002.

This National nursing shortage is affecting certain States and localities more than others. Figure 2 shows that 30 States experienced shortages of RNs in 2000, including each of the five States studied in this report: California, Georgia, Indiana, Texas and Utah. By 2020, the States with shortages are expected to increase to 44.³

Figure 2. States With Projected Shortages, 2000 and 2020



Source: Bureau of Health Professions, Health Resources and Services Administration, 2002.

The extent of the shortage varies by State. Four of the focus States for this report are expected to fare worse than the nation by 2020. As shown in table 1, California and Georgia—facing the most severe shortage by 2020—face a 40 percent shortage or more, and Indiana and Utah could experience shortages of at least 30 percent. Although Texas is somewhat better off than the nation as a whole, shortages there are nonetheless expected to reach 26 percent by 2020. In short, what is already a problem is worsening at an alarming pace and, if not monitored, the five States studied face serious shortfalls in the years to come.

Table 1. Projected Shortages, 2000-2020

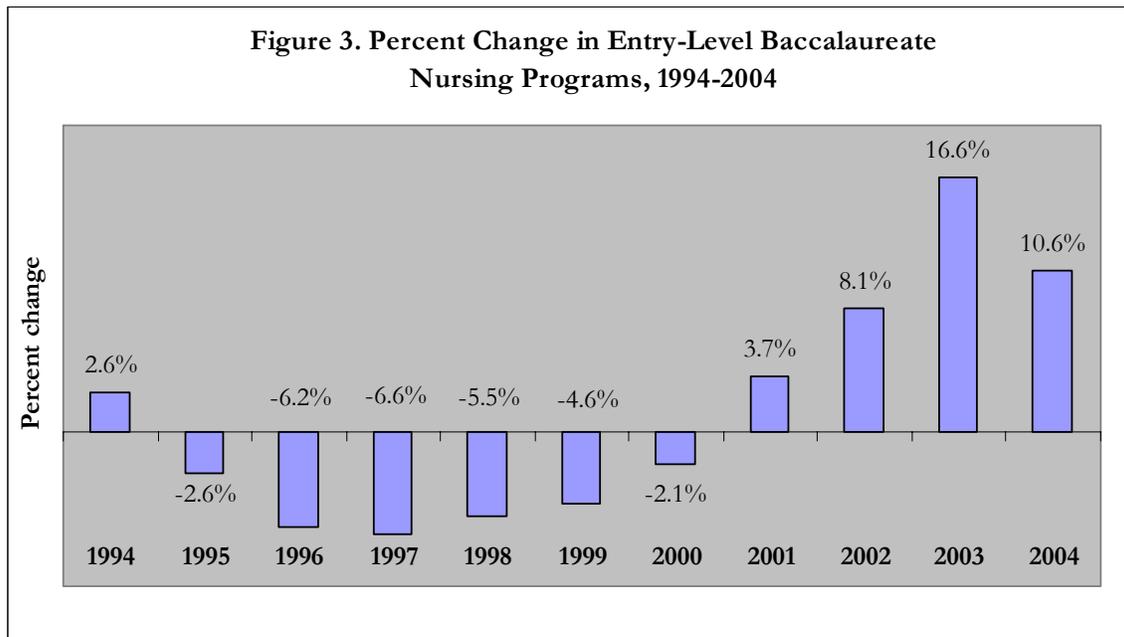
State/Jurisdiction	2000	2005	2010	2015	2020
California	-8%	-10%	-21%	-34%	-46%
Georgia	-7%	-15%	-23%	-32%	-40%
Indiana	-10%	-12%	-17%	-23%	-32%
Texas	-9%	-7%	-11%	-17%	-26%
Utah	-8%	-12%	-19%	-27%	-36%
United States	-6%	-7%	-12%	-20%	-29%

Source: Health Resources and Services Administration, Bureau of Health Professions, 2002.

The demand for nurses is increasing for a number of reasons. Among them is a rapidly aging population. As the baby boom generation ages, it will demand that more health care services be provided by more health care professionals. During the next 25 years, the over-age-65 population will increase at five times the rate of those under age 65.

At the same time that demand is intensifying, the supply of nurses is decreasing because today’s nurses also are growing older, and there are not enough new nursing school graduates to replace those who will soon retire.

Despite the dire forecasts, there are some positive signs. After years of downward trends in enrollments and graduations—the number of graduates from all three types of RN programs declined by 31 percent between 1995 and 2000⁴—schools across the country are reporting upward trends in the number of students and graduates. Enrollments in entry-level baccalaureate programs were up by 11 percent in 2004 over the previous year, according to the American Association of Colleges of Nursing (AACN), marking the fourth consecutive year of growth since 2001 (figure 3).



Source: American Association of Colleges of Nursing, December 2004.

Moreover, the National League for Nursing (NLN) reports that admissions and graduations for all three types of nursing programs—diploma, associate and baccalaureate programs—were up by about 6 percent between 2002 and 2003.

Although these are impressive gains, a lack of institutional capacity is jeopardizing continued growth. In 2004, nursing programs reportedly turned away 26,000 qualified applicants. This trend, coupled with the slower enrollment growth in 2004 (see figure 3), suggest that “...some nursing programs have reached the limit on how far they can expand.”⁵

In short, a serious lack of institutional capacity is limiting how many new nurses will emerge from the pipeline. It is no surprise, then, that addressing this problem is a key concern for policymakers, nursing educators and the health care industry. The following section describes the educational pipeline in general and for the five States studied in this report.

EDUCATIONAL PIPELINE

The nursing pipeline refers to the process of educating nurses—which takes between two and five years—and takes into account the number of students applying to, enrolling in and graduating from nursing programs. In addition to U.S.-educated nurses, the pipeline of future nurses also

includes nurses educated abroad. The pipeline is comprised of various steps (summarized below), each of which is a target of various policy measures designed to expand the size of each group.

- *Applications.* The pipeline begins with the applicants who apply to nursing programs. The benefits of a large applicant pool are obvious. For one, it allows nursing programs to admit more students—a critical element, in light of the growing need for more nursing graduates. Second, a larger pool gives programs the ability to select those candidates who are academically prepared for the rigors of nursing education and who respond to the State’s specific needs, such as greater diversity or geographic distribution throughout the State.
- *Admissions.* Programs often turn away qualified candidates, particularly when the applicant pool is large and the program’s capacity is limited. In response, strategies focus on expanding program capacity, primarily by increasing the faculty workforce.
- *Enrollment.* Not all students who are admitted to nursing programs enroll; therefore, the enrollment numbers typically are lower than admissions. To offset this, many programs over-admit students.
- *Graduates.* The number of students enrolled in a program may drop due to expected attrition for academic or personal reasons. Strategies focus on supporting students so they achieve academically and remain able to manage other responsibilities.
- *Licensure.* Taking the licensing exam is the final step in becoming a nurse. Schools have adopted various strategies to improve the percentage of students who pass these exams.

Policymakers and health care employers focus on expanding the pipeline because it is one way to increase the supply of nurses to meet demand. Expanding the pipeline typically involves increasing the available labor pool, increasing diversity within that pool—nursing personnel remain predominately white and female—and reducing turnover or departure from the field by nurses who already are in the workforce.⁶

PATH TO NURSING

There are various ways to become a nurse. The following are descriptions of the educational requirements for licensed practical nursing and registered nursing.

Licensed Practical Nurses (LPNs) or Licensed Vocational Nurses (LVNs) care for the sick, injured, convalescent and disabled under the supervision of a physician or registered nurse. LPNs “...provide basic bedside care, may give injections or medications, change dressings, evaluate patient needs, implement care plans, and supervise nursing assistants.”⁷

Professional or Registered Nurses (RNs) have obtained the initial professional license of registered nurse. RNs “...interpret and respond to patient symptoms, reactions, and progress” and plan or direct care accordingly in a variety of settings, including specialized areas such as intensive care, obstetrics and public health. “They teach patients and families about proper health care, assist in patient rehabilitation, and provide emotional support to promote recovery. RNs use a broad knowledge base to administer treatments and make decisions about patients.”⁸

Structure of Nursing Education

Educational Program Leading to Licensure as a Practical Nurse (LPN). After completing a 1 year educational program, practical nurse program graduates are eligible to sit for the National Council of State Boards of Nursing Licensure Exam for Practical Nurses, also known as the NCLEX-PN exam. Approximately 1,152 State-approved LPN programs were offered in 2000 in the United States.⁹

Educational Programs Leading to Initial Professional Licensure (RN). Students can prepare to become RNs in three ways.

- *Diploma nursing programs* are 2-3 year hospital-based programs that prepare students to deliver direct patient care in hospital settings. Some of these programs are affiliated with community and technical colleges. Diploma programs declined in number from 256 in 1985 to 76 in 2002.¹⁰ These programs accounted for 5 percent of all RN programs in 2003, according to the NLN.
- *Associate degree in nursing programs* are 2-3 year programs, typically offered in community and technical colleges, that prepare students to provide direct patient care in a variety of settings. After a period of growth—between 1985 and 1995 the number of these programs increased by 13 percent—associate degree programs declined in number. In 2003, there were 846 such programs, down by 11 from 2002.¹¹ Associate degree programs account for 59 percent of all RN programs, and about the same proportion—60 percent of all RN students—are admitted annually into such programs.
- *Bachelor's degree in nursing – entry level programs* are 4 year programs that prepare students to practice in all health-care settings. The generic or entry-level baccalaureate program admits students who have no previous nursing education and awards a baccalaureate nursing degree upon completion. According to the AACN, 566 schools offered generic, or entry-level, baccalaureate degrees in 2003.¹² These programs account for about 36 percent of all RN programs, and roughly the same percentage of students are admitted into them annually.
- *Accelerated programs for non-nursing college graduates* admit students who hold baccalaureate degrees in other disciplines but have no previous nursing education and award graduates a baccalaureate nursing degree. These fast-track programs typically take 12 to 18 months of full-time, year-round study. In 2004, 136 accelerated baccalaureate nursing programs were available in 37 States and the District of Columbia. According to the AACN, 50 new accelerated baccalaureate programs currently are in the planning stages.¹³

Educational Programs Leading to Advanced Professional Licensure (RN)

- *Bachelor's degree in nursing – non-entry-level programs* admit RNs with associate degrees or diplomas in nursing and award a baccalaureate nursing degree. In 2004, there were 611 of these programs, also called RN completion or RN-to-Baccalaureate programs.¹⁴

Advanced Education

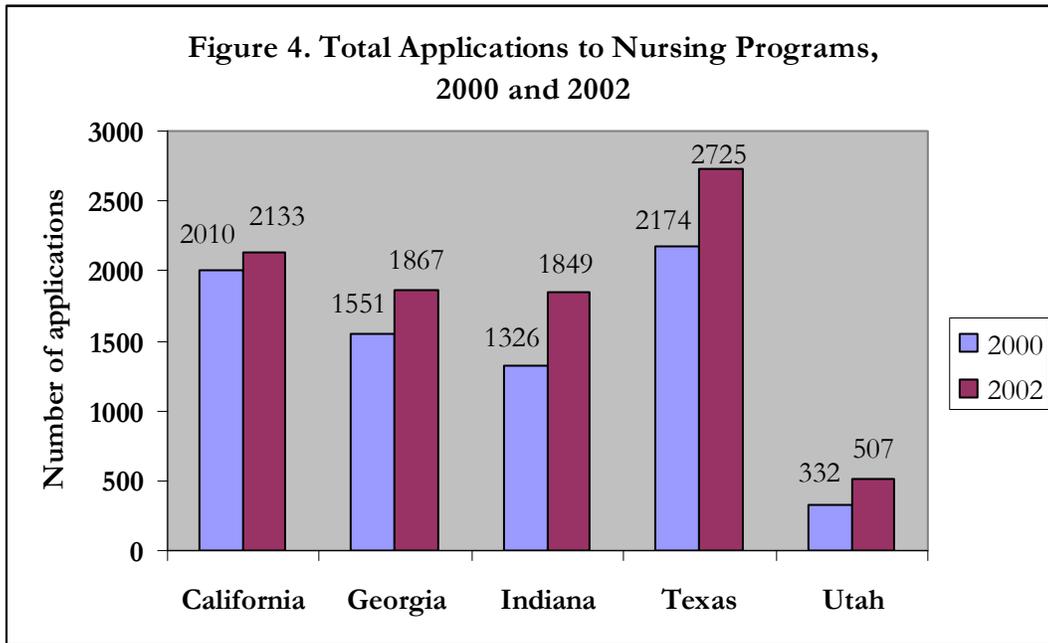
- *Master's degree in nursing programs* prepare students for education, management and advanced practice roles. Practicing nurses who wish to become advanced practice nurses or desire more advanced nurse education in a clinical specialty may choose to enroll in a master of science in nursing (MSN) program with a specialization in their chosen area of interest (e.g., family nurse practitioner, acute care clinical specialist) or a track in the chosen function (e.g., educator, health policy, ethics, administrator). Most of these students already will have earned their BSN degree, and a majority will already be licensed to practice nursing. In 2003, 400 institutions in the United States and its territories offered master's degrees in nursing.¹⁵
- *Accelerated master's programs* are available for individuals who have completed baccalaureate or other graduate degrees in fields other than nursing. These programs include 12 months of intensive nursing education, after which the student is eligible to sit for the NCLEX-RN. Upon passage of the exam, the student then continues with the master's portion of the program to complete the chosen specialization. Thirty-seven institutions offer accelerated master's programs in the United States and its territories, and programs at another 18 institutions are in the planning stages.¹⁶
- *Doctoral degrees in Nursing* (i.e., Ph.D., DNS, DNSc) represent the terminal degree in the field. In 2003, 88 institutions offered doctoral degrees in nursing.¹⁷ In most large public universities and academic health centers, nursing faculty must hold a doctoral degree to teach in master's and doctoral programs. This cadre of faculty are most often engaged in nursing research and the advancement of nursing sciences.

NATIONAL AND FIVE-STATE TRENDS IN THE NURSING PIPELINE

Significant increases in the number of interested and qualified nursing program applicants suggest that interest in nursing is growing—likely due to a number of factors, including effective recruitment strategies, increased financial incentives for potential nurses and nursing instructors, improved work conditions and relatively sluggish job growth in other fields.

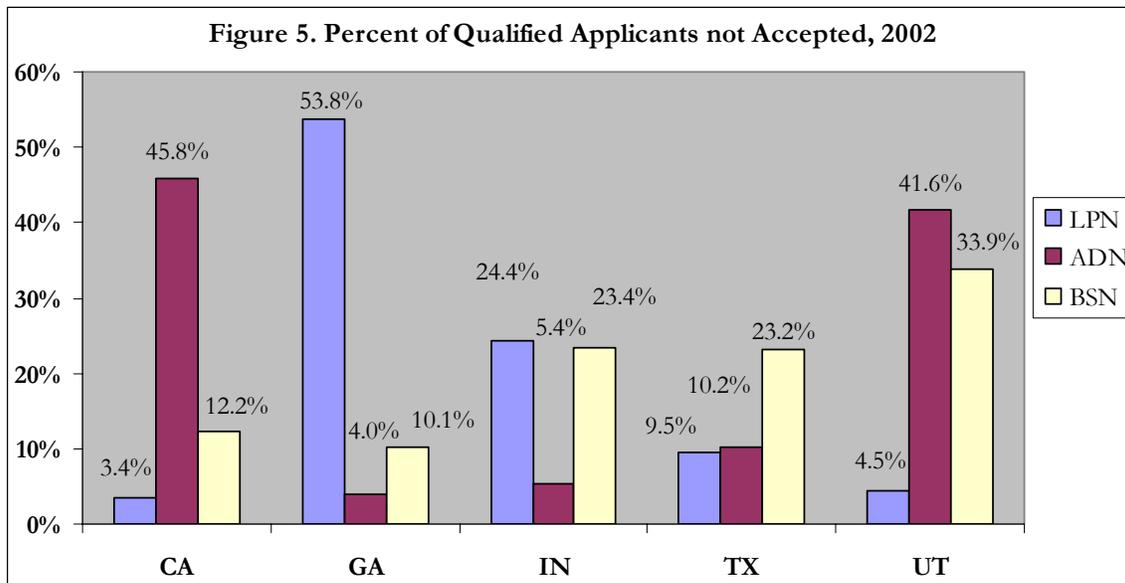
Applications to nursing programs are on the rise nationally and in the five focus States, in many cases outpacing the capacity of nursing programs to accept all qualified candidates. As a result, nursing programs are turning away qualified applicants or placing them on a waiting list.

Applications for generic and RN-to-Baccalaureate programs were increasing in each of the five States, with every State but California reporting gains of 20 percent or higher (figure 4).



Source: American Association of Colleges of Nursing, 2003.

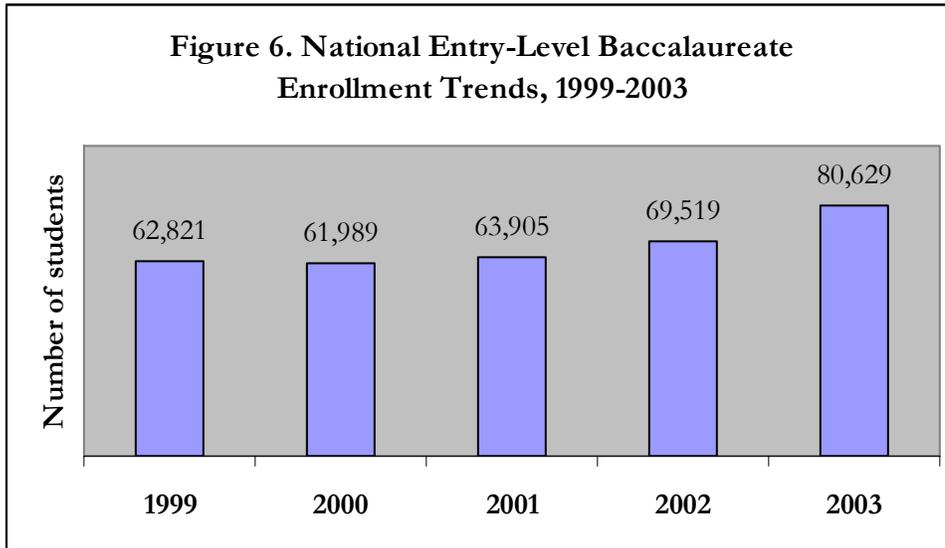
As in the nation as a whole, schools in the five focus States are turning away qualified applicants, as shown in figure 5. Schools in California and Utah turned away more than 40 percent of qualified applicants to associate degree programs in 2002, and Georgia schools rejected 54 percent of qualified LPN applicants.



Source: National League for Nursing, unpublished data, 2003.

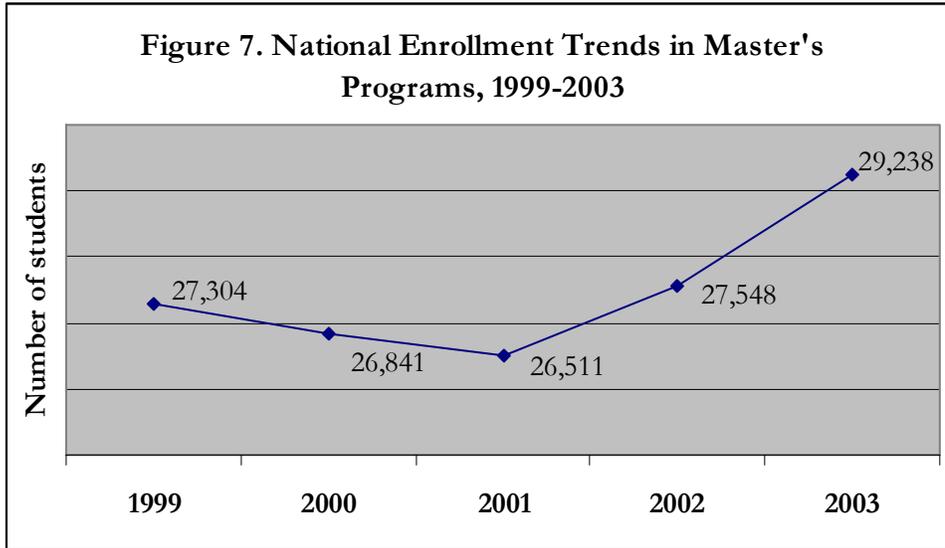
Nursing programs from the five States reported that they could not accept more qualified applicants in 2002 because the programs lacked sufficient faculty and admission seats were filled.

Following years of downward trends, enrollments now are on the upswing nationally, as well as in the five States studied here. As shown in figure 6, enrollment in generic or entry-level baccalaureate programs increased by 30 percent nationally between 1999 and 2003—from 62,821 in 1999 to 80,629 in 2003.



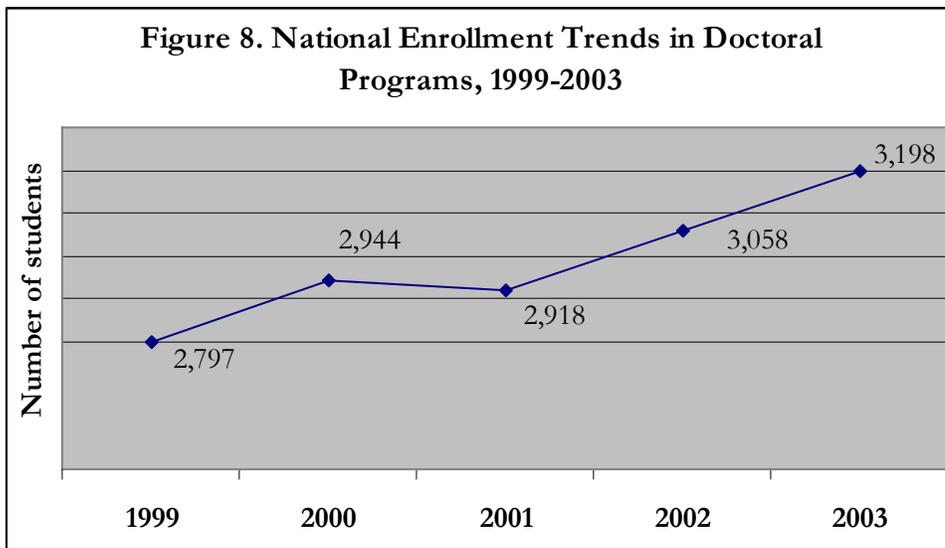
Source: American Association of Colleges of Nursing, 2003-2004.

As shown in figure 7, the number of students in master's degree programs increased by 10 percent between 2001 and 2003, after a decline in the two previous years.



Source: American Association of Colleges of Nursing, *Enrollments and Graduations in Baccalaureate and Graduate Programs in Nursing, 2003-2004*.

Enrollment in doctoral programs, as shown in figure 8, increased by 14 percent—from 2,797 in 1999 to 3,198 in 2003.

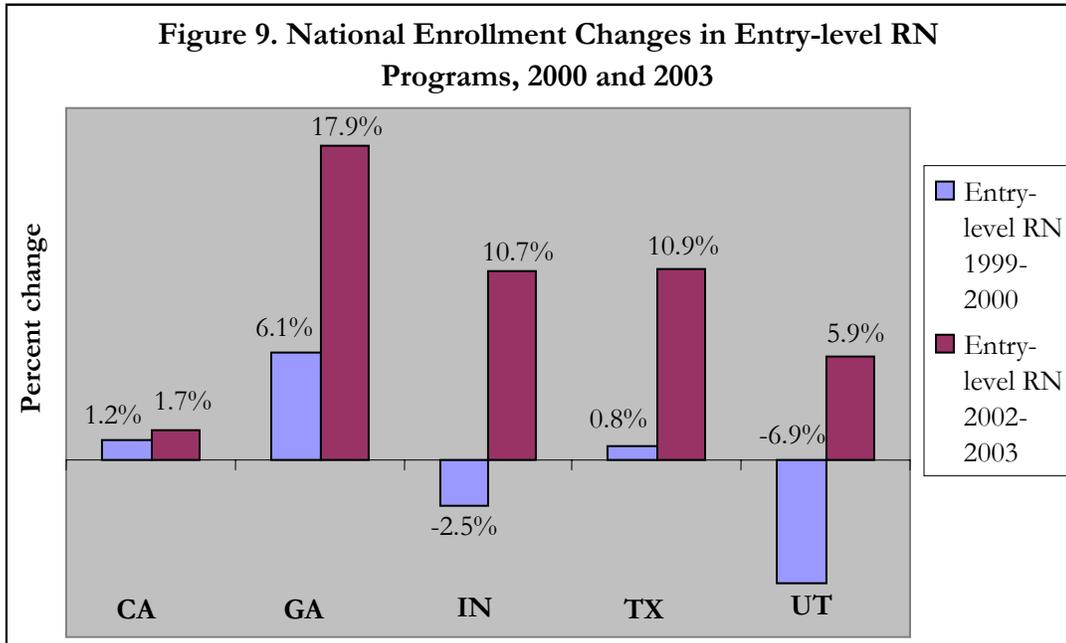


Source: American Association of Colleges of Nursing, *Enrollments and Graduations in Baccalaureate and Graduate Programs in Nursing, 2003-2004*.

The National League for Nursing also reports an increase in enrollment between 2002 and 2003 in associate degree and diploma programs. Enrollment in associate degree programs jumped 9

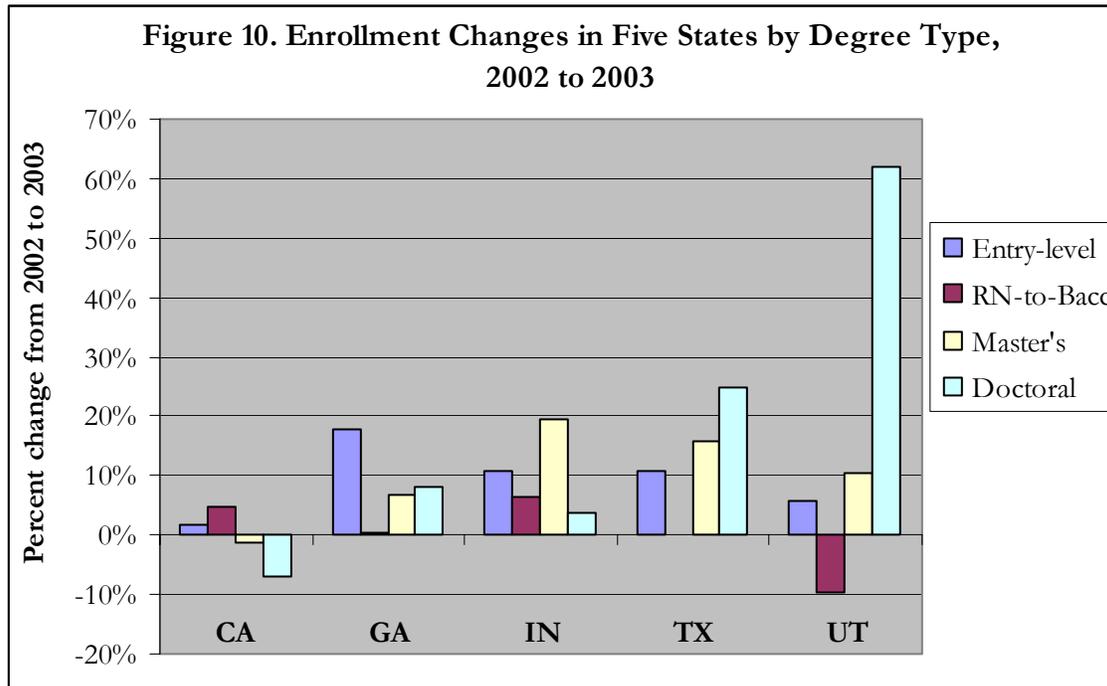
percent—from 117,192 to 127,709—while enrollment in diploma programs saw a 14 percent increase—from 9,767 to 11,153.¹⁸

At the State level, nursing programs are reporting enrollment gains as well. Figure 9 compares enrollments at two points in time. Enrollment between 1999 and 2000 in entry-level RN programs increased slightly in California, Georgia and Texas, while it dropped in Indiana and Utah. Three years later, however, all five States reported one-year enrollment increases (from 2002 to 2003) in entry-level baccalaureate programs. Georgia schools reported the largest annual enrollment increase, nearly 18 percent. In short, enrollment trends are changing course in the five focus States.



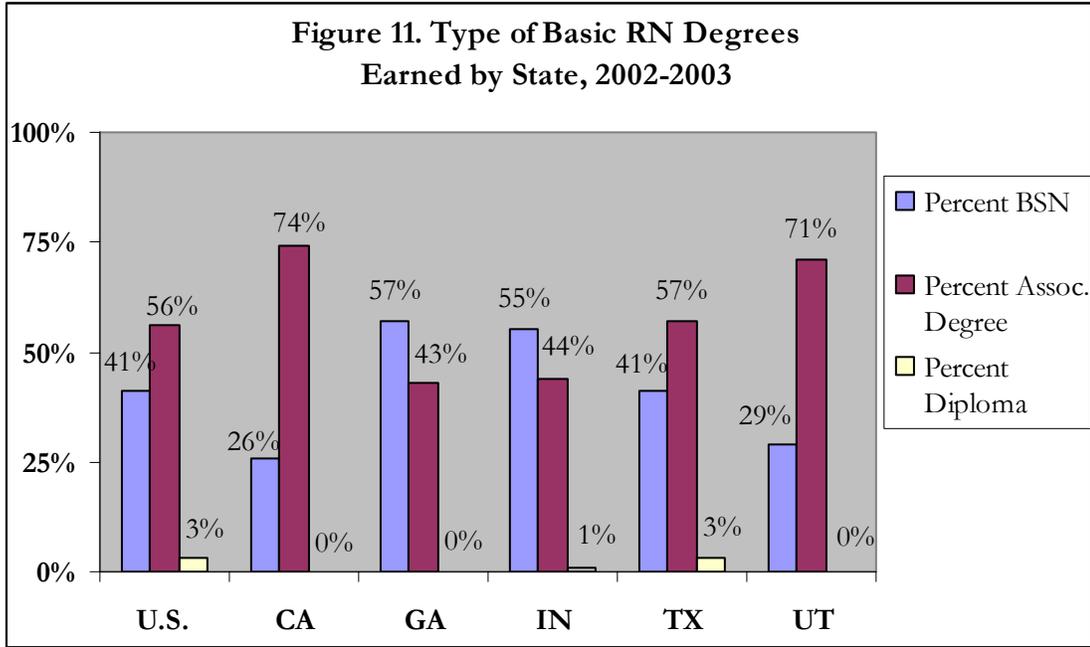
Source: American Association of Colleges of Nursing, *Enrollments and Graduations in Baccalaureate and Graduate Programs in Nursing, 2003-2004*.

Moreover, with a few exceptions, States reported continued enrollment gains for every degree type between 2002 and 2003. As shown in Figure 10, doctoral programs reported a significant annual increase in enrollments in Texas and Utah—at 25 percent and 62 percent, respectively. Enrollment in entry-level baccalaureate programs increased in all five States, ranging from an 18 percent jump in Georgia to a modest gain of 1.7 percent in California. Enrollment in master’s degree programs was higher in 2003 than the previous year in every State except California, with gains of up to 20 percent in Indiana. Enrollment in master’s degree programs was higher in 2003 than the previous year in every State except California, with gains of up to 20 percent in Indiana.



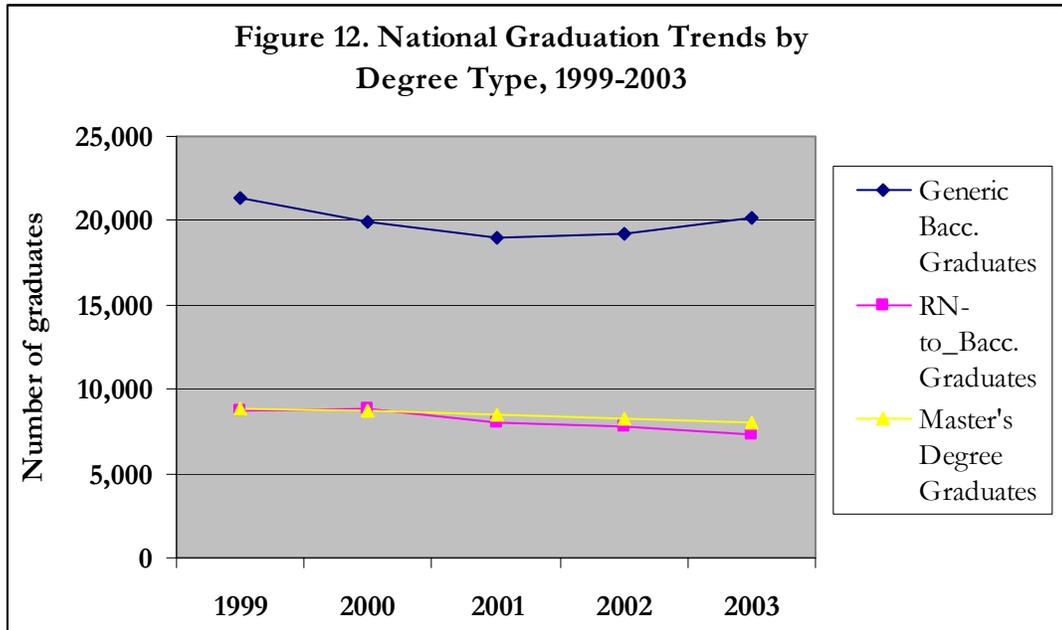
Source: American Association of Colleges of Nursing, *Enrollments and Graduations in Baccalaureate and Graduate Programs in Nursing, 2003-2004*.

In the United States, about 4 of every 10 graduates from nursing programs have received a baccalaureate degree, and nearly 6 in 10 received an associate degree (with just 3 percent having earned a diploma degree.) As shown in figure 11, California and Utah have the highest proportion of graduates with associate degrees, at 74 and 71 percent, respectively. The other three States have more BSN graduates as a percentage of all graduates in 2003 than the nation as a whole.



Source: National League for Nursing, Nursing Data Review Academic Year 2003

Following a 6 year decline in graduations from entry-level baccalaureate programs, nursing programs began reporting an upward trend in the number of graduates in 2001. As shown in figure 12, between 2001 and 2003, the number of generic baccalaureate graduates increased slightly, while graduations from master's degree programs remained relatively stable from previous years, but overall were slightly lower than in 1999.

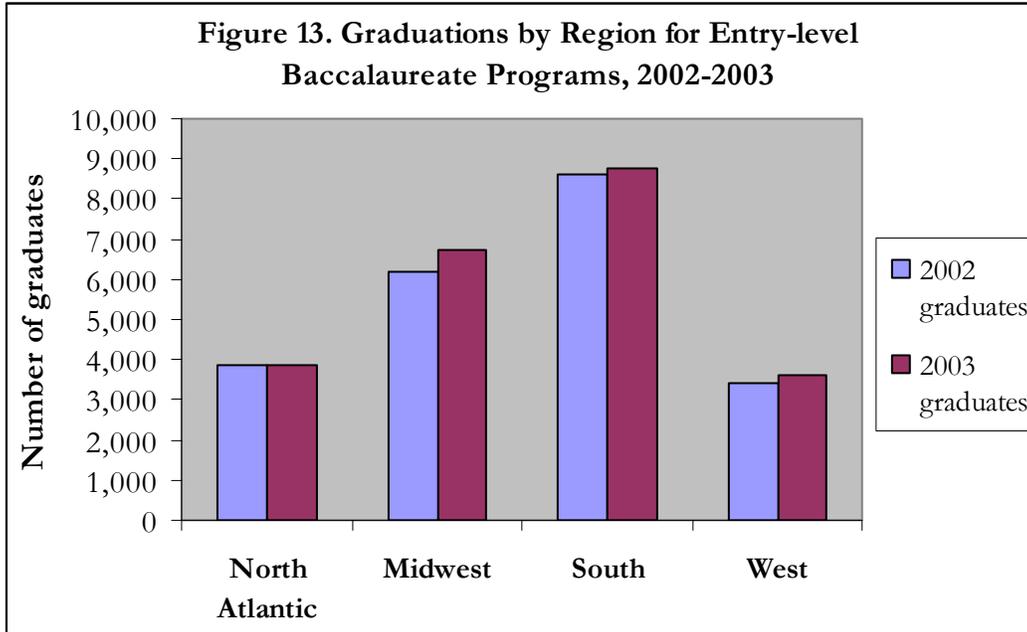


Source: American Association of Colleges of Nursing, *Enrollments and Graduations in Baccalaureate and Graduate Programs in Nursing, 2003-2004*.

Graduations from entry-level baccalaureate programs continued to increase after 2003. The AACN reported that graduations from entry-level baccalaureate nursing programs were up significantly in 2004: more than 27,000 new graduates were ready to join the workforce, a 14 percent increase from 2003. These new data move graduation levels for generic baccalaureate programs above 1999 levels.¹⁹

The number of graduates from entry-level baccalaureate programs in the five States also is on the rise, although modestly in some regions. (The most recent graduation data that allows for comparison across the country examines regional rather than State graduation data.)

As shown in figure 13, every region in the country graduated more entry-level baccalaureate students in 2003 than in 2002. In the midwest region, where Indiana is located, there was a one-year increase of nearly 9 percent, while more modest gains of 2 percent occurred in the southern region (which includes Georgia and Texas).²⁰



Source: American Association of Colleges of Nursing, 2004.

In contrast, graduations from master’s and doctoral degree programs were down in almost every region. The number of graduates from master’s degree programs dropped by almost 3 percent in the western region (which includes California and Utah). The only region to see gains in master’s degree graduations was the midwest, which experienced a slight 1 year gain of 1 percent. Significantly fewer doctoral graduations occurred in 2003 than in the previous year—ranging from a 4 percent drop in the west to a 12 percent drop in the midwest.

Graduation rates are likely to increase as the larger classes of students enrolled in master’s and doctoral degree programs move through the pipeline; however, the flat or downward trend in graduations from these programs suggests that short-term relief to the growing crisis in the faculty workforce is yet to be attained.

Passing the nurse licensure exam is the final step in the licensure process; therefore, the number of individuals who pass the registered and practical nurse licensure exams is a good indicator of how many new nurses are entering the profession, according to the National Council of State Boards of Nursing (NCSBN).

- **RN Exam-Takers.** The number of people who took the National Council Licensure Examination for RNs (NCLEX-RN) in 2004 was up by 15 percent from 2003. In 2004, 121,006 RN candidates took the exam; in the same 9 month period in 2003, 105,410 RN candidates took the exam. The pass rate in 2004 was 73 percent; therefore, more than 88,000 new RNs were available for employment in 2004.

- PN Exam-Takers. Almost 4,000 more licensed practical nurse candidates took the National Council Licensure Examination for Practical Nurses (NCLEX-PN) in 2004 than in 2003, an increase of about 8 percent. In 2003, 43,563 LPN candidates took the exam, while 47,401 took it 1 year later. With a pass rate of 80 percent, about 38,000 new licensed practical nurses were available for employment in 2004.

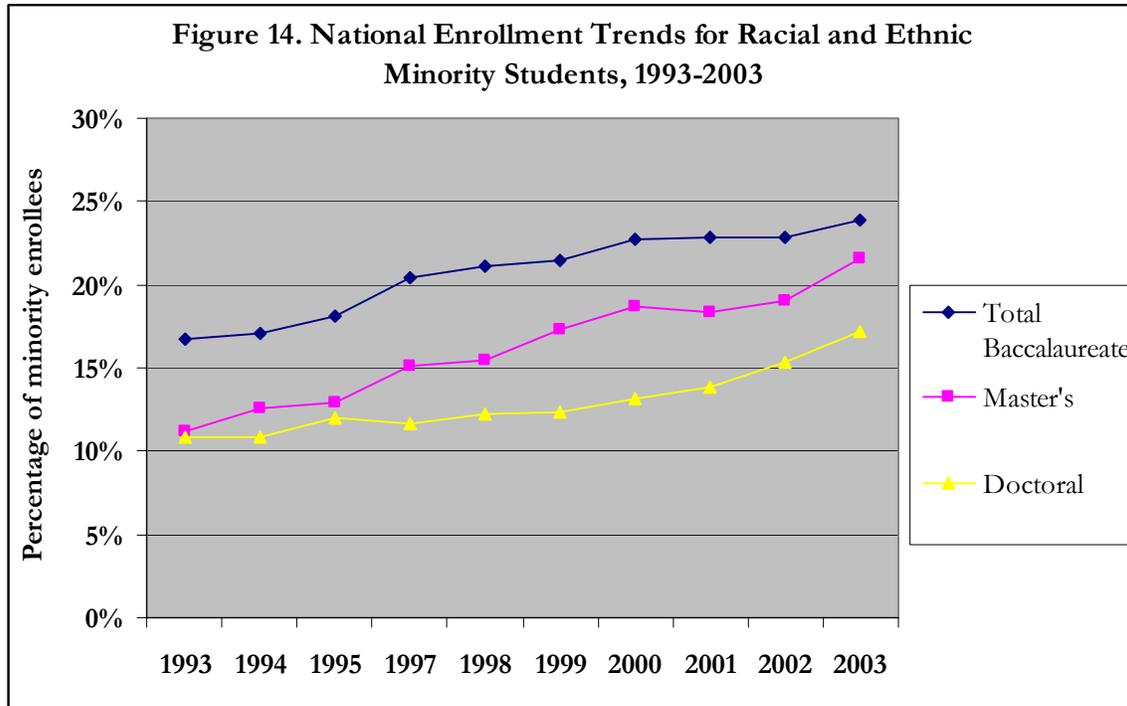
A key concern for States is how to increase the pass rates on the NCLEX exams. For example, after a steady decline in the pass rate for the NCLEX-RN exam, the California Board of Registered Nursing set up a task force in 2000 to identify factors that improve the pass rates for first-time takers and to make recommendations for achieving higher overall pass rates. The task force surveyed nursing education administrators, who cited the following factors that adversely affect scores: English fluency, interval of time between graduation and test-taking, and number of hours the student works.²¹

STUDENT DEMOGRAPHIC STATISTICS

In addition to building a large enough nursing supply, policymakers and others also are seeking policies that will increase diversity, so that the nursing workforce more closely resembles the overall population.

According to the National Advisory Council on Nurse Education and Practice (NACNEP), advisors to the HHS Secretary and Congress, "...a culturally diverse workforce is essential to meeting the health care needs of the Nation's population."²² Not only is the entire U.S. population becoming more diverse, but minority populations have higher rates of certain diseases, lower rates of successful treatment, and are more likely to reside in areas where shortages exist of health care providers. Moreover, diversity in the health care workforce has been found to improve health care quality and outcomes, particularly among people of color.

Nationally, nursing students and graduates at all levels were more diverse in 2003 than in 1993, according to data compiled by the AACN. As shown in figure 14, minority students comprised nearly 25 percent of baccalaureate nursing programs in 2002, up from 17 percent in 1993. Nationally, schools reported increases in minority enrollment for master's degree and doctoral programs as well—with master's programs reporting a near doubling of minority enrollment, from 11 percent in 1993 to 21 percent in 2003.



Source: American Association of Colleges of Nursing, *Enrollments and Graduations in Baccalaureate and Graduate Programs in Nursing, 2003-2004*.

The five focus States also are achieving more diversity among nursing students and graduates. This growing diversity among nursing students may be a result of strategies aimed at reducing barriers, such as financial assistance, loan repayment, tutoring, mentoring and creative approaches by nursing schools to recruit and retain students from diverse backgrounds²³ Each of the five reported having a greater proportion of non-white enrollees in generic RN baccalaureate programs in 2001 than in 1997.²⁴ In Texas, for example, the percentage of white enrollees dropped from 64 percent to 59 percent; at the same time, the proportion of Hispanic enrollees increased from 14 percent to 21 percent.

Graduates from RN-to-Baccalaureate programs were proportionately more diverse in 2001 than in 1997 in all five States. The percentage of African-American graduates doubled in Indiana and Texas, while the percentage of Hispanic graduates nearly doubled in California.

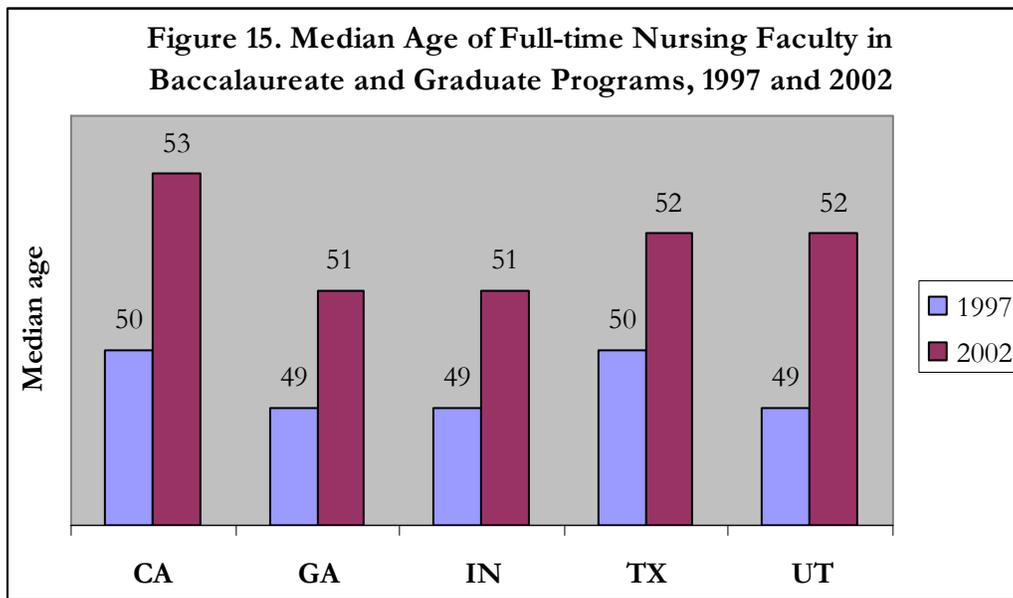
At the master's level, the proportion of non-white graduates increased in every State but Indiana, which reported no change. In Texas, the proportion of African-American graduates increased from 3 percent to 6 percent, and in Utah, the proportion of Hispanic graduates tripled from 2 percent to 6 percent. The graduating classes from doctoral programs in three States—California, Georgia and Indiana—were more diverse in 2001 than in 1997. The percentage of African-American graduates

increased from 14 percent to 25 percent in Georgia; Hispanic graduates increased from 7 percent to 11 percent in California; and Asian or Pacific Islander graduates increased by 14 percent in Indiana.

NURSING FACULTY TRENDS

National and State economic conditions and demographic shifts influence necessary nursing pipeline expansion. A significant constraint is the faculty shortage: without enough educators, programs are forced to turn away qualified and interested candidates. This becomes a vicious cycle, as lack of faculty squeezes programs' ability to enroll more students, resulting in fewer students who can pursue nursing education, thus curtailing the opportunity to expand the pipeline in the future.

The faculty shortage has several causes. For one, the teaching workforce reflects the demographic changes in the population at large: teachers are becoming older and closer to retirement. Second, there is a lack of younger teachers. As shown in figure 15, the median age of faculty in all five States increased by two to three years between 1997 and 2002.



Source: American Association of Colleges of Nursing, 2002.

According to the National League for Nursing, the top reason faculty left in 2002 was retirement (36 percent), followed by those who “wanted a career change.” Other reasons included relocation, health problems and termination.²⁵

Furthermore, nursing instructors typically earn less and have less salary growth potential than their colleagues who hold clinical jobs. Nurses can earn more in clinical practice with a master’s degree than in a faculty position that may require a doctoral degree.²⁶ Starting salaries for new graduates may exceed salaries of faculty who have both advanced degrees and experience.

In addition to relatively low salaries, the demand for lengthy and costly education can deter nursing students. According to the NLN, completing a doctorate degree (from the start of the doctorate program) takes 8.3 years in nursing, versus 6.8 years in other fields.²⁷ Because of the lengthy process involved to become an educator, increasing the faculty workforce takes time. A

master's degree is the minimum requirement for teaching in community college programs and clinical teaching in undergraduate programs.

Unfortunately, near-term help may not be available. In a 2002 survey, the Southern Regional Education Board (SREB) found that just 8 percent of the 2,837 graduates in their 16-State region were prepared as nurse educators. According to the NLN, trends in master's program enrollments do not portend an increase in the number of nurse educators. In 2003, 24,838 students were enrolled in master's programs, a drop of nearly 20 percent from 1993. Moreover, the number enrolled in educator tracks dropped from 3,301 in 1993 to 1,366 in 2003. Although the number of graduates remained relatively stable between 1993 and 2003 (at 7,926 and 7,516, respectively), the number of graduates from educator tracks dropped from 755 in 1993 to 247 in 2003.

CURRENT WORKFORCE SUPPLY

In addition to the prospective nurses in the educational pipeline, the total supply of nurses also is comprised of nurses who already are in the workforce. Although this report focuses on nursing education, a discussion of nursing supply would be incomplete if it failed to address those nurses who already work in the field. After downward trends between 1995 and 2000—when there was a 31 percent decrease in the number of graduates and half of all States saw a drop in their RN-to-population ratios—the supply of nurses now is increasing. Among the ranks of the nursing workforce, more nurses are working full-time and more are employed in nursing (rather than other fields). In 2000, there were 2.7 million licensed RNs in the United States, according to the National Center for Health Workforce Analysis (NCHWA) at the HRSA, BHP.

SUPPLY OF NURSES

One measure of how well the nursing workforce is meeting demand is the number of employed nurses per 100,000 individuals. Although use of this number alone has limitations—States with more elderly residents may require more services and resources than other States that have more young or healthy residents, for example—it provides an overview of the availability of nurses among the State's overall population.

As shown in table 2, certain States already were facing significant shortfalls in 2000. Of the five focus States, all but Indiana were “red States” in 2000, meaning they were more than 10 percent below the National average of RNs per capita. In California, there were 544 RNs per 100,000 people—the second lowest in the nation behind Nevada—and significantly below the U.S. average of 782.²⁸

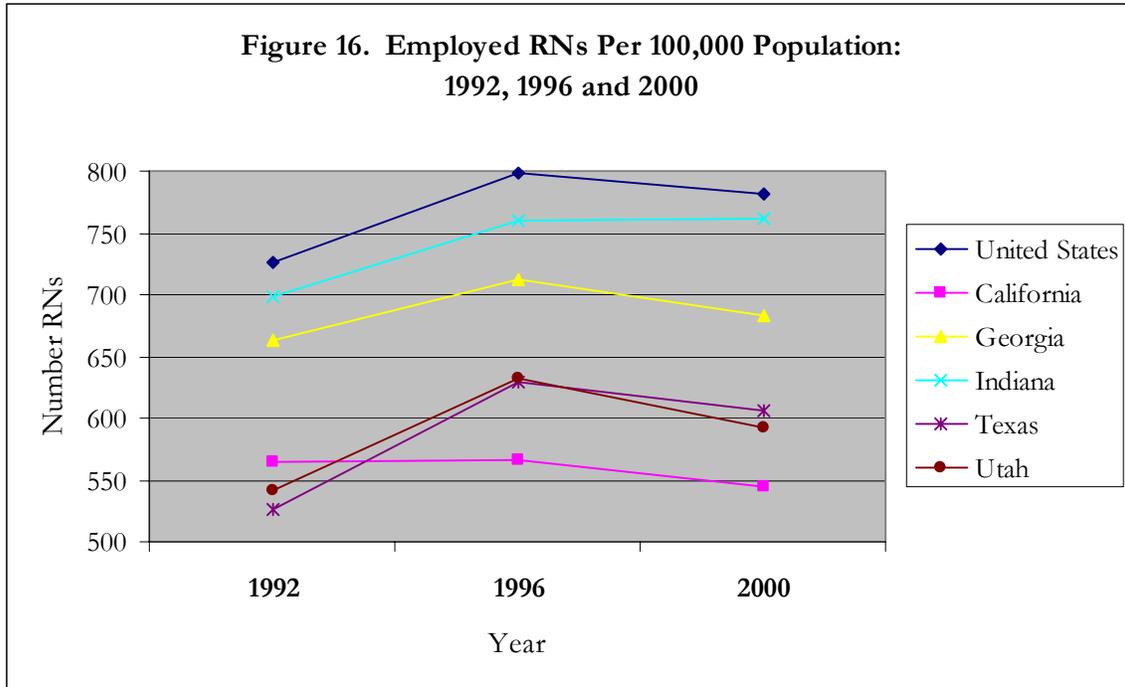
Table 2. RNs per Capita by State

More than 10% above average	
<i>State</i>	<i>Employed nurses per 100,000 population</i>
Connecticut	942
Delaware	936
Iowa	1,060
Kansas	885
Maine	1,025
Massachusetts	1,194
Minnesota	957
Missouri	960
Nebraska	958
New Hampshire	916
North Dakota	1,096
Ohio	882
Pennsylvania	1,010
Rhode Island	1,101
South Dakota	1,128
Tennessee	872
Vermont	957
Wisconsin	893
Less than 10% above average	
Alaska	784
Florida	785
Illinois	819
Kentucky	833
Louisiana	834
Maryland	856
New Jersey	800

New York	843
North Carolina	858
Oregon	793
West Virginia	858
Less than 10% below average	
<i>State</i>	<i>Employed Nurses per 100,000 population</i>
Alabama	766
Colorado	737
Indiana	761
Michigan	761
Mississippi	750
South Carolina	728
Washington	738
Wyoming	780
More than 10% below average	
Arizona	628
Arkansas	650
California	544
Georgia	683
Hawaii	703
Idaho	636
Montana	636
Nevada	520
New Mexico	656
Oklahoma	635
Texas	606
Vermont	592

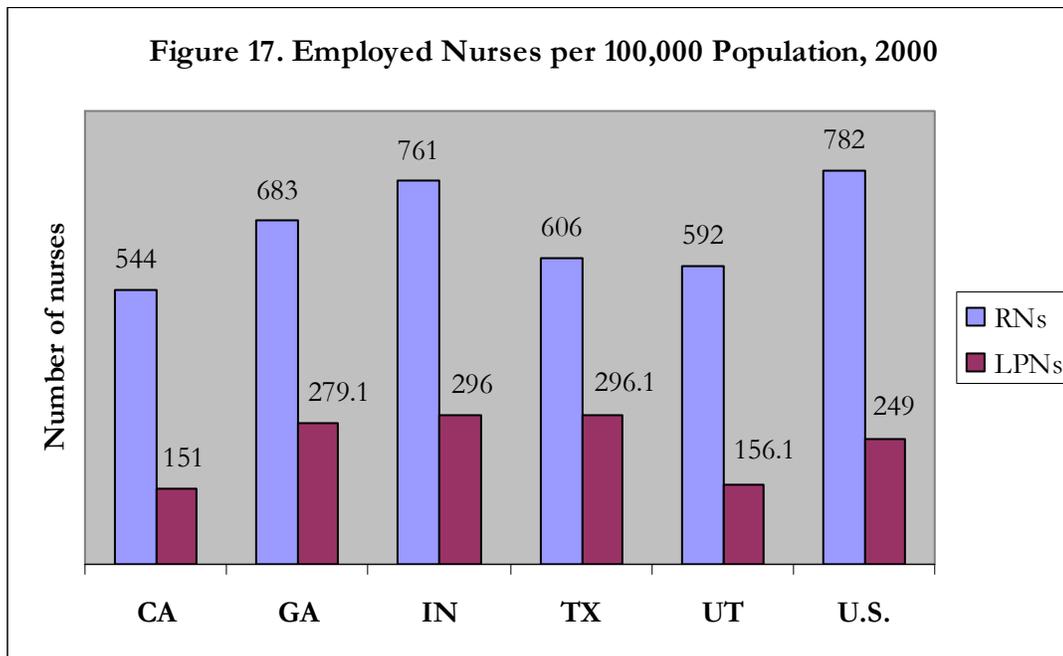
Source: Health Resources and Services Administration, RN sample survey, 2000.

Mirroring the U.S. ratio, the nurse-to-population ratio increased in the five States between 1992 and 1996 and, with the exception of Indiana, which remained about the same, dropped between 1996 and 2000 (figure 16). This downward trend will affect States for years to come, as they seek to build up the supply of RNs.



Source: HRSA, *The Registered Nurse Population: 2000, 1996 and 1992 Sample Survey*.

As shown in figure 17, among licensed practical nurses, three of the States—Georgia, Indiana and Texas—fare slightly better than the nation as a whole, while Utah and California fall below the National average—249 LPNs per 100,000 population—with 151 and 156 LPNs per capita.



Source: HRSA, BHP, The Registered Nurse Population: 1992, 1996 and 2000 National Sample Survey of Registered Nurses.

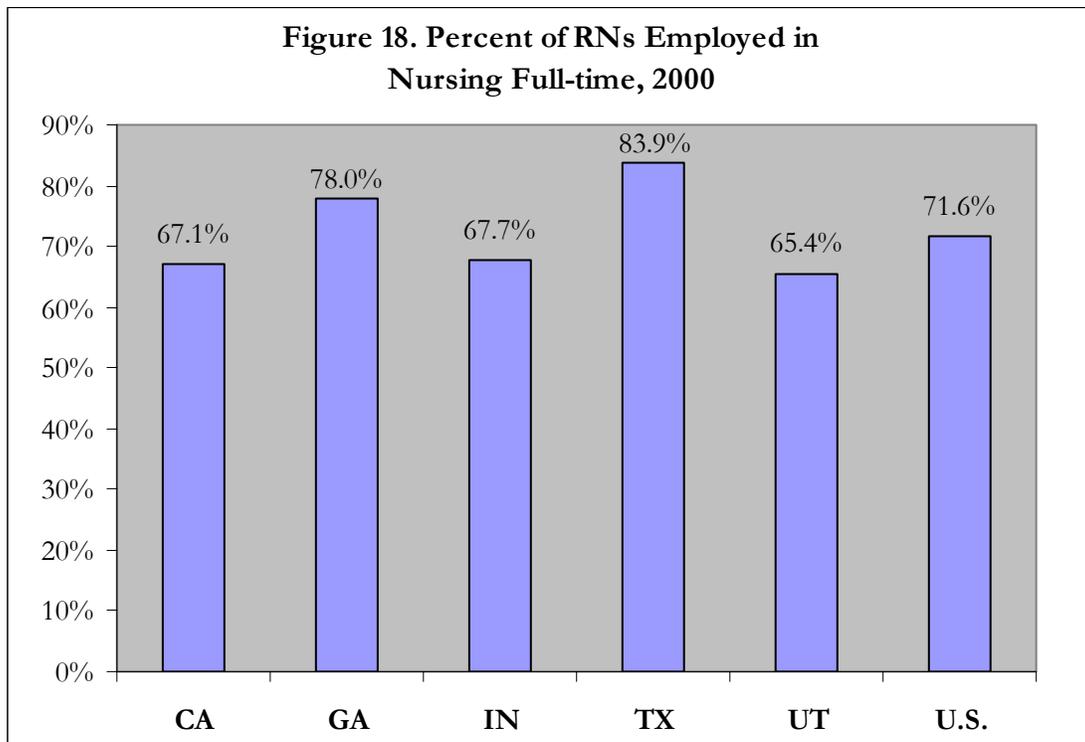
In addition to expanding the educational pipeline, increasing the number of RNs also involves other efforts designed to bring former nurses back to the field. In the United States as a whole, nearly 82 percent of nurses were employed in nursing. As shown in table 3, the levels exist in the five States, ranging from 76 percent in Indiana to 85 percent in Utah. Although the vast majority of RNs are working in the field, the nurses who have left the profession represent an opportunity for States, many of which are examining ways to entice RNs to return to the profession by improving working conditions and enhancing the public view of the nursing profession.

Table 3. Percent of RNs Employed in Nursing

State/Jurisdiction	1992	1996	2000
California	83.8%	77.3%	81.4%
Georgia	84.6%	83.7%	82.2%
Indiana	80.6%	80.7%	75.9%
Texas	83.0%	88.0%	84.1%
Utah	87.8%	89.9%	84.5%
United States	82.7%	82.7%	81.7%

Source: HRSA, BHP, The Registered Nurse Population: 1992, 1996 and 2000 National Sample Survey of Registered Nurses.

As shown in figure 18, 72 percent of RNs were working full-time in 2000 in the United States, up from 69 percent in 1992. That falls somewhere in the middle of the five States studied in this report; of these, California has the lowest percentage of full-time nurses and Texas the highest.



Source: HRSA, The Registered Nurse Population, 2000 sample survey.

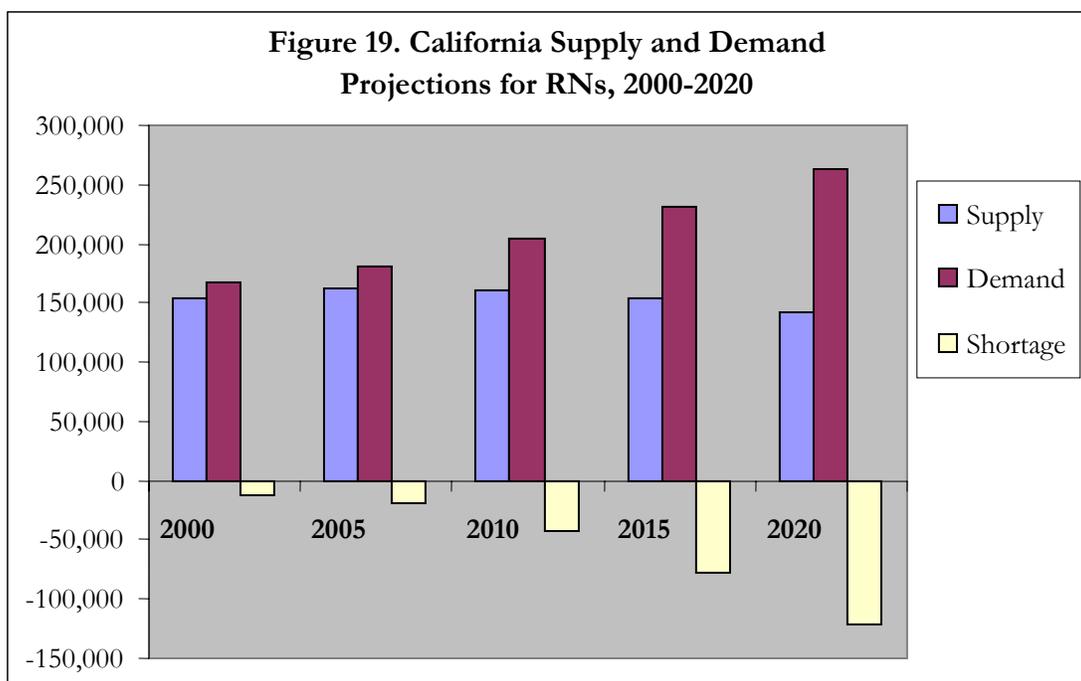
For States that are urgently attempting to increase their workforce, part-time workers represent additional capacity that already is in the workforce. In most of the five States, this percentage of full-time workers has not changed significantly since 1992²⁹ except in Indiana, where the percentage of RNs working full-time dropped from 73 percent in 1992 to 68 percent in 2000. However, finding ways to increase the number of full-time employees is a challenge in the nursing profession, which is comprised largely of older females who may be decreasing the number of hours for personal or health reasons that may include caring for dependent children or aging parents.

UP CLOSE: FIVE STATES' PIPELINES

This section examines more closely the nursing pipeline in each of the five States, as well as the specific issues facing them. Although the States face common problems—and are on similar trajectories (e.g., growing demand, shrinking workforce) they also have differences in the challenges they face and the opportunities each has for turning around the problem.

CALIFORNIA

California's nursing shortage already has hit, and projections for the future are dire. According to the BHP_r, the gap is expected to widen rapidly, with an expected shortage of more than 120,000 nurses by 2020. As shown in figure 19, between 2005 and 2020 the shortfall of nurses is expected to grow by more than 500 percent, from 18,409 to 120,695.



Source: Health Resources and Services Administration, Bureau of Health Professions, 2002.

In 2002, hospitals reported a 15 percent vacancy rate.³⁰ In the coming years, the demand for nurses is expected to soar. According to the State's Employment Development Department, nearly 110,000 new RNs will be needed by 2010 to fill new jobs and those jobs left by departing nurses—a 40 percent increase in the number of RNs working in 2000.³¹ In addition, the State projects an even higher demand for licensed vocational nurses—by 2010 the State will need an additional 25,000 LVNs, a 50 percent jump from the number of LVNs working in 2000.

In addition to a shortage of nurses, there is a mismatch in the type of educational background most nurses have and what employers want, according to a California Strategic Planning Committee for Nursing (CSPCN) employer survey. According to the survey, the demand for RNs with baccalaureate and master's degrees was up by 9 percent and 10 percent, respectively, while the

demand for RNs with associate degrees was down 6 percent.³² In 2003, the State's 91 basic RN programs graduated 4,736 RNs—of which 74 percent received associate degrees and 26 percent received BSN degrees.³³

Behind this growing problem: the size of the pipeline has not been keeping pace with population gains in California, according to the University of California San Francisco's Center for Health Professions. Between 1994 and 1998, the population grew 5 percent; at the same time, graduations from basic RN programs declined 8 percent and enrollments declined 33 percent.³⁴ Moreover, the State is relying on other States and countries to educate a substantial proportion of its workforce. About half of California's RNs received their nursing education in another State or country.³⁵

According to the California Strategic Planning Commission for Nursing, nursing programs are "... almost universally oversubscribed and many, particularly in public institutions, still have long waiting lists." Still, nursing programs did not expand for more than 10 years—until 2000—when some programs expanded.³⁶ The increases in program capacity have been largely supported by partnerships between employers and educational institutions that aim to increase enrollment through local and regional initiatives.³⁷

In the 2000 academic year there were about 40 percent more applicants Statewide for nursing programs than could be enrolled "because there was no space for them."³⁸ This lack of capacity persists.

- Entry-level RN programs reported that they turned away 317 qualified applicants in 2002—twice the number of applicants turned away in 2000. About one in five qualified applicants were turned away in 2002. Among the schools that reported reasons for turning away potential students, more schools cited insufficient faculty than other reasons.
- Non-BSN programs, including LPN and associate level programs, turned away students in even larger numbers, according to the National League for Nursing. In 2002, one-third of qualified applicants were not accepted and placed on waiting lists.

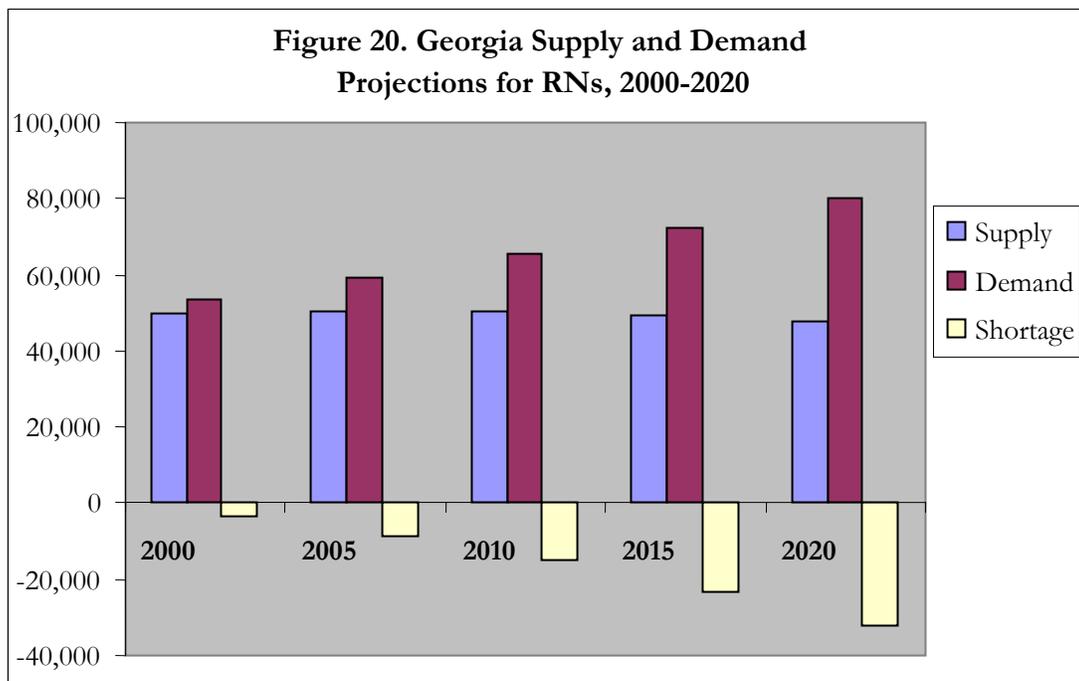
As a result of these capacity issues, the CSPCN concluded, "... program capacity is clearly insufficient to meet projected demand and is dependent on adequate funding for faculty."³⁹ Furthermore, to meet employer and public demand for nursing, the CSPCN recommended a long-term increase in funding for nursing education at all levels to produce more new graduates from each level, including 15,031 additional associate degree graduates and 10,038 baccalaureate graduates.⁴⁰ Moreover, the committee recommended additional funding to support master's and doctoral programs; this is expected to create a larger pool of potential faculty.

Despite the grim findings, there are some modest signs that certain schools of nursing are expanding and diversifying. According to the American Association of Colleges of Nursing, nursing programs in California are enrolling more students, although the percentage increase in entry level programs from 2002 to 2003 was the smallest of the five States. In 2003, enrollment in entry-level RN programs was up by 2 percent over the previous year, and enrollment in RN-to-Baccalaureate programs was up by 4.7 percent. Enrollment in master's degree and doctoral programs was down in 2003—with enrollment drops of 1 percent and 7 percent, respectively. California was the only State to report negative growth in graduate level training between 2002 and 2003.

By 2002, the CSPCN reported that the proportion of ethnic minority students and male students increased. The proportion of students from minority backgrounds accounted for over half the students enrolled and graduating from California nursing programs in 2002.⁴¹

GEORGIA

The supply of nurses is dropping at the same time that demand for health care services is rapidly rising. Driving the demand is a rapidly growing and aging population (Georgia’s population growth ranks fourth in the nation), an aging nursing workforce that is approaching retirement, and an insufficient pool of new nurses to replace outgoing nurses and meet the swelling demand. As a result, by 2020, the BHPr anticipates a shortfall of more than 32,000 nurses (figure 20).



Source: Health Resources and Services Administration, Bureau of Health Professions, 2002.

According to the NLN, the State’s 35 basic RN programs produced 1,642 graduates in 2003, of whom 57 percent received BSN degrees and 43 percent received associate degrees in nursing.

As in many States, the shortage has already impacted Georgia. Hospitals are experiencing double-digit vacancy rates for RNs and LPNs—11 percent and 9 percent, respectively—and nursing homes reported at least 15 percent vacancy rates for both RNs and LPNs. The situation is more severe in State-operated facilities. Correctional facilities reported 28 percent and 23 percent vacancy rates for RNs and LPNs, respectively, while vacancy rates for registered nurses soared to 38 percent in Georgia Department of Human Resources’ mental health inpatient facilities.⁴²

Despite adversity, there are positive elements. A 2002 Georgia Health Care Workforce Policy Advisory Committee report identified rising numbers of applications and enrollment levels. However, the State has a lengthy process in order to meet the growing demand for nurses. The

committee found that “... it will take a number of years of steady enrollment increases and matriculation stability to bring the graduation numbers up to a credible level.”

According to the AACN, nursing programs in Georgia are experiencing significant enrollment gains, particularly in entry-level RN programs, where enrollment in 2003 was 18 percent higher than the previous year. Student enrollment in master’s and doctoral programs also was up between 2002 and 2003, by 7 percent and 8 percent, respectively.

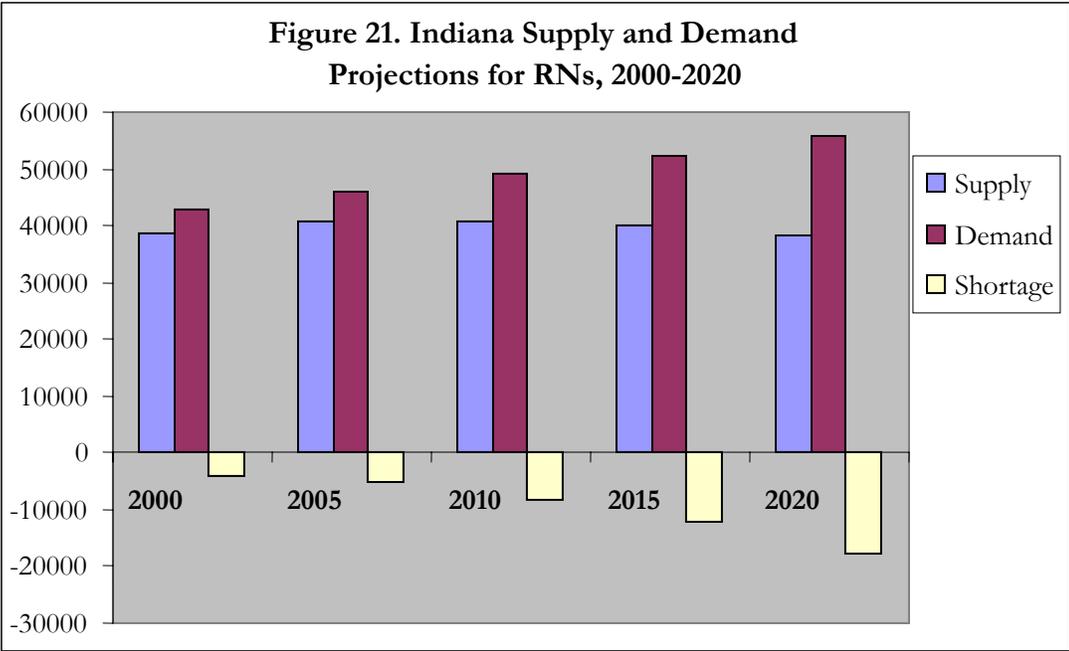
Although this upward trend promises a future wave of nurses from the pipeline, the system is still not producing enough graduates to fill a rapidly growing number of nursing jobs. Georgia relies significantly on other States to educate its nurses. According to Georgia’s Statewide Area Health Education Center, nearly 40 percent of registered nurses received their education in another State. Among LPNs, 82 percent went to school in Georgia, and 18 percent received their education elsewhere. Expanding the State’s capacity to produce more nursing graduates is critical. To meet the growing demand for nurses, the Workforce Policy Advisory Committee wrote in its 2002 report, “Georgia’s educational systems, both public and private, must aggressively expand their capacity to produce health care graduates.”⁴³

Although Georgia schools have to deny qualified applicants, the numbers are not as high as in other States, including those in the region. According to the SREB, schools in the 16-State region reported declining qualified applicants in significant quantities. More than half of associate degree programs and 36 percent of bachelor’s degree programs reported denying qualified candidates.⁴⁴

In comparison, entry-level baccalaureate programs in Georgia reported turning away 15 percent of qualified candidates to entry-level baccalaureate programs in 2000—a marked reduction from 1995, when they rejected nearly 27 percent of qualified candidates, amounting to 779 potential nursing students. The main reasons schools turned away qualified individuals included insufficient faculty and filled admission seats.⁴⁵

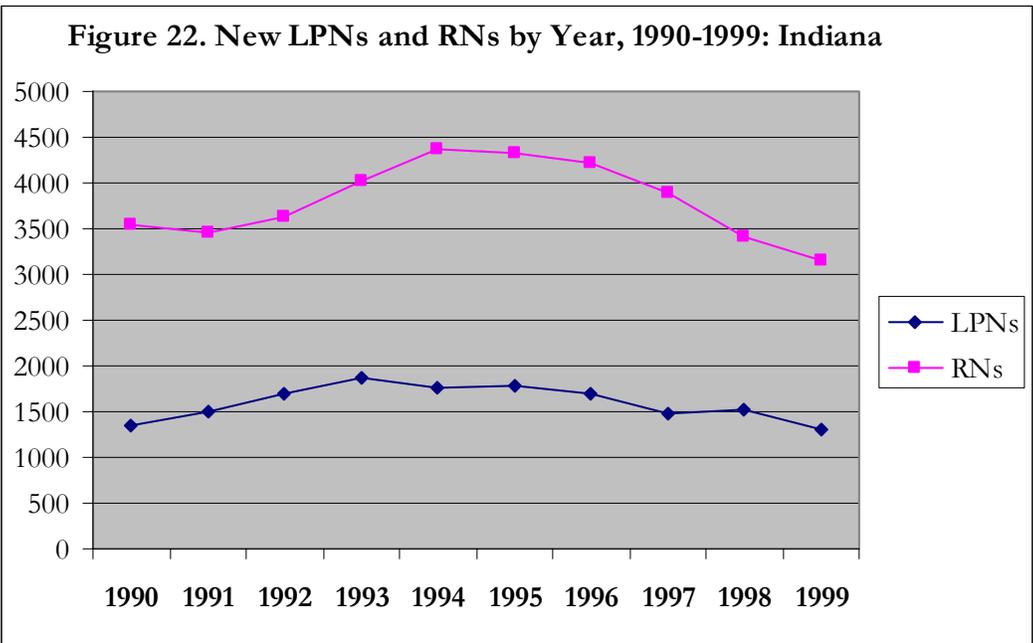
INDIANA

Indiana’s demand for RNs is expected to grow more slowly than the other 4 States; however, a shortage of nearly 18,000 nurses is expected by 2020 due to the expected drop in supply of nurses. According to the BHP_r, the shortfall of nurses will double between 2010 and 2020, from more than 8,000 to almost 18,000 (figure 21).



Source: Health Resources and Services Administration, Bureau of Health Professions, 2002.

According to the 2001 Indiana Health Care Professional Development Commission report, the number of new LPNs and RNs dropped between 1994 and 2001, with new LPNs dropping by nearly 30 percent (figure 22).



Source: Indiana Health Care Professional Development Commission, 2001 Report.

Despite declining numbers of new graduates in the late 1990s, it appears that the trends may be slowly reversing. According to the 2002 Indiana Nursing Workforce Development Steering Group, enrollments increased by 5 percent between 2000 and 2002. Moreover, the AACN reports that student enrollment in nursing programs is increasing, with gains in both entry-level and RN-to-Baccalaureate programs (11 percent and 7 percent, respectively). The gains are most significant in master's degree programs, where 2003 enrollment was 19 percent higher than in 2002. This marks a reversal in a negative growth rate of minus 12 percent between 1999 and 2000. Similarly, enrollment in doctoral level programs increased between 2002 and 2003 by 4 percent, a reversal of negative enrollment growth between 1999 and 2000.

Between 2000 and 2002, nursing programs reported an increase of 600 applications—or 64 percent more applications in 2002 than two years before—for entry-level baccalaureate programs. Along with this increase in applications, however, was a simultaneous increase in the number of rejected applicants. Schools reported turning away more than twice as many qualified applicants in 2002 than in 2000—13 versus 6 percent, respectively. At the Indiana University School of Nursing—which enrolls 1,400 students and graduates 40 percent of the State's nurses—the dean reported having to deny 1 in 4 students because of faculty shortages. The program was short four faculty members in 2004.⁴⁶

Non-BSN programs also are turning away qualified candidates, according to the NLN. In 2002, LPN and associate degree programs turned away 14 percent of qualified applicants, with LPN programs reporting that they turned away nearly one-quarter of all qualified applicants.

As in all five States, Indiana faces a critical shortage of faculty. According to the Indiana 2001 Registered Nurse Survey, the number of RNs who reported teaching as their principal position dropped from 692 in 1997 to 665 in 2001—a decrease of 4 percent. Not surprisingly, nursing faculty in 2001 were older on average than they were in 1997. The percent of nursing faculty between the ages of 31 and 44 dropped from 31 percent in 1997 to 18 percent in 2001. During that period, the proportion of nurses over age 55 increased.⁴⁷

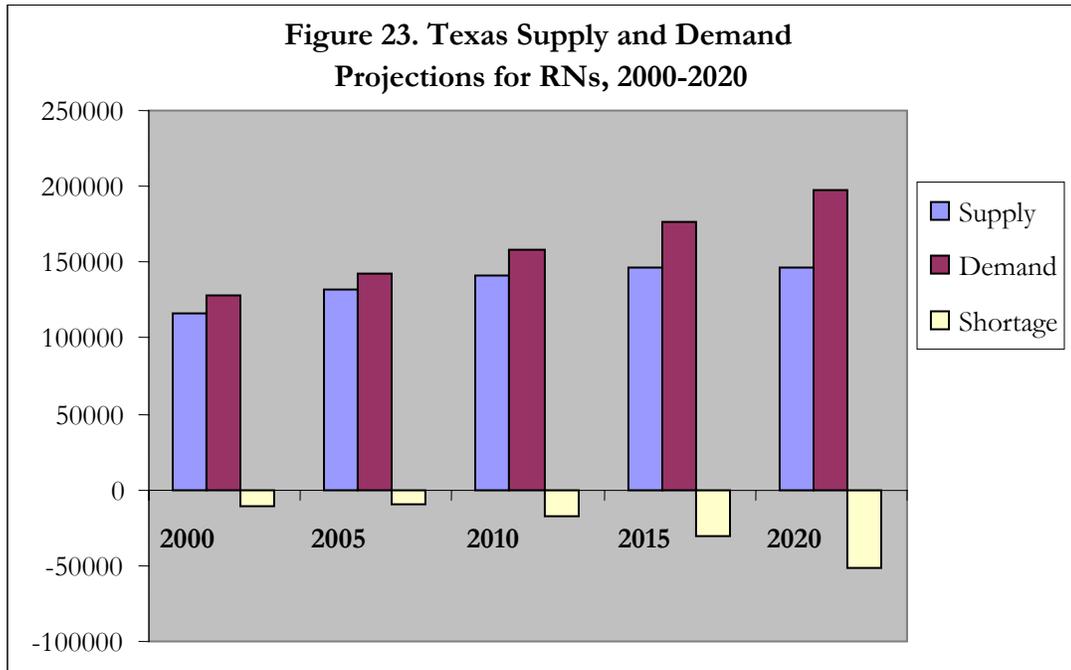
Although the faculty workforce is becoming smaller, it is increasingly moving toward holding higher degrees. The percentage of faculty with master's or doctorate degrees increased between 1997 and 2001. Faculty with doctoral degrees comprised 19 percent in 2001, up from 10 percent in 1997. The numbers and proportion of faculty with a bachelor's degree or lower declined from 1997 to 2001. Faculty who held bachelor's degrees comprised 20 percent in 2001, down from 28 percent in 1997.⁴⁸

Similarly, the workforce as a whole is increasing its highest educational attainment. According to the 2001 Indiana Registered Nurse Survey, the number and percentage of nurses with diplomas is dropping, and it is increasing for nurses with baccalaureate degrees. Diploma nurses comprised 15 percent of the RN workforce in 2001, down from 21 percent in 1997. At the same time, nurses with baccalaureate degrees increased by 35 percent. Associate degree nurses increased in number over that time period, but fell slightly in terms of their share of the overall workforce. Master's level nurses increased from 1,690 in 1997 to 2,828 in 2001—an increase of 67 percent. Nurses with doctoral degrees increased from 97 in 1997 to 172 in 2001, for an increase of 83 percent.⁴⁹

Moreover, there are some signs of recent growth and diversification in the nursing supply. According to the 2001 Indiana Registered Nurse Survey, the number of RNs practicing in Indiana increased by 18 percent between 1997 and 2001, from 38,721 to 45,615. During the same period, the workforce also became more diverse, with the number of African-American RNs and RNs of Hispanic origin growing by 33 percent.⁵⁰

TEXAS

Although the supply of nurses is expected to grow steadily in Texas—by about 25 percent between 2000 and 2020, according to the BHP—it is not expected to be enough to outpace demand, which is expected to rise even faster. As a result, by 2020, Texas is expected to be short by 52,000 nurses, as shown in figure 23.



Source: Health Resources and Services Administration, Bureau of Health Professions, 2002.

In 2003, the shortage already had impacted hospitals, which reported an average vacancy level of 11 percent, according to a survey by the Texas Hospital Association. To address the problem, schools of nursing need to double the number of graduates each year from 5,000 to 10,000.⁵¹ Moreover, another survey completed by the University of Texas Health Science Center at San Antonio found that 26 percent of registered nurses no longer were working in direct care nursing in 2002; nearly one-third of them cited job conditions—such as stress, long hours and lack of decision-making power—as reasons they had left direct care.⁵² As a result, the State, along with the private and academic sectors, is taking steps to expand the pipeline of incoming nurses and, at the same time, improve working conditions.

The educational pipeline is showing signs of recovery, particularly in the number of students entering and graduating from Texas schools of nursing. In 2003, the State's 75 basic RN programs produced approximately 5,200 graduates; nearly 60 percent held associate degrees.⁵³

According to the Texas Higher Education Coordinating Board (THECB), Texas has experienced the following milestones:⁵⁴

- Qualified applicants to RN programs—including diploma and associate degree in nursing and BSN programs—increased 67 percent between 1997 and 2003.

- First-year entering enrollees in all RN programs increased by 87 percent between 1997 and 2003, with increases in BSN programs and associate degree and diploma programs.
- The number of all RNs graduating in Texas reached 5,242 in 2003—returning to 1997 levels. The number of graduates from diploma and associate degree programs jumped from 2,832 to 3,368 between 2001 and 2003, while BSN programs—increasing from 1,699 to 1,874—grew at a slower rate.

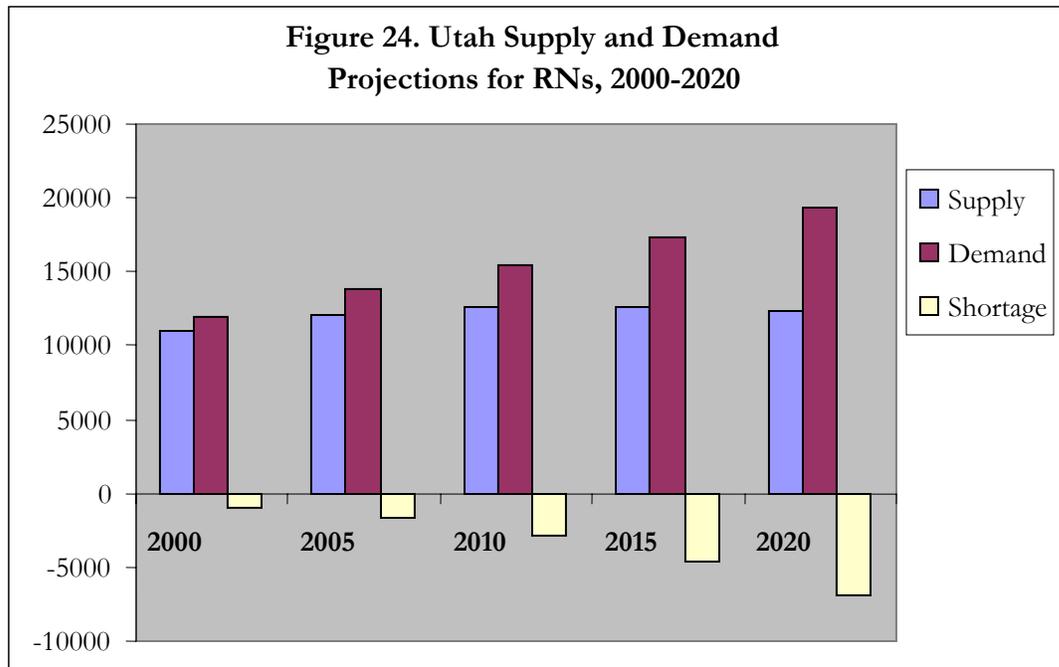
Also reporting gains in applications, the AACN reported that applications to entry-level baccalaureate programs jumped by nearly 30 percent between 2000 and 2002. In both years, schools reported turning away about one-fifth of qualified applicants; the most-cited reason was insufficient faculty. The faculty shortage is an increasing problem for the Lone Star State; the THECB reported that faculty numbers have not increased at the same rate as class sizes. Between 1999 and 2003, the average entering RN class size increased 108 percent, while average full-time faculty increased by 13 percent. According to the board, schools' inability to hire more faculty "... appears to be the greatest impediment to increasing enrollment in initial RN licensure programs." At the heart of the problem: disparities in salaries between faculty and clinical nurses. The disparity is especially pronounced in community colleges.

The problem does not appear to be diminishing in the near future. The number of graduates from graduate nursing programs is at a 10-year low, according to the THECB, and more graduate students appear to be preparing for clinical practice than for an academic career.

UTAH

Utah ranks third in the nation in the severity of its nurse shortage, behind California and Nevada, and the picture is even more bleak for long-term care, where the RN vacancy rate for nursing homes is the highest in the country at 24.3 percent. Hospitals use overtime and temporary nurses to fill the void, but the shortage persists.⁵⁵ These stopgap measures are costing hospitals \$15 million to \$20 million annually, according to the Utah Hospitals and Health Systems Association. As a result of the shortage, hospitals are turning away patients and postponing surgeries.⁵⁶ Moreover, the situation is expected to worsen as new facilities open.

According to BHPr, the gap between supply and demand is widening in the Beehive State, where the supply of RNs is expected to remain relatively unchanged at a time when demand is growing steadily. The result: by 2020, Utah is expected to be short by nearly 7,000 RNs (figure 24).

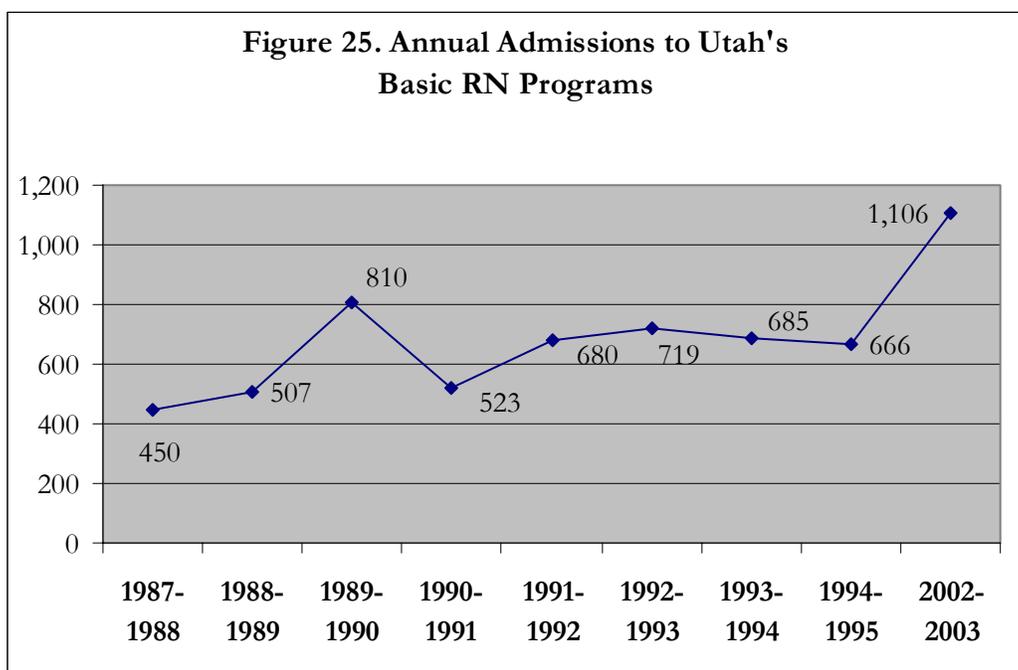


Source: Health Resources and Services Administration, Bureau of Health Professions, 2002.

Of the five States, Utah has the largest number of non-BSN students enrolled compared to BSN students enrolled in 2002, according to the NLN. For every student enrolled in a BSN program, 2.33 were enrolled in non-BSN programs (including LPN and associate-level programs).

In 2002, the State’s 9 basic RN programs graduated approximately 883 RNs, and 70 percent held associate degrees.⁵⁷ Utah had the highest ratio of non-BSN students graduating from nursing schools compared with BSN students. In 2002, for every BSN graduate, there were 4.62 graduates from non-BSN programs.

Utah nursing programs saw a 53 percent gain in applications to RN programs between 2000 and 2002—the largest gain of the 5 studied States. Utah’s nursing programs also have reported an increase in admissions: 2003 admissions were greater than any other year and were nearly 70 percent greater than admissions in 1995 (figure 25).⁵⁸



Source: Nursing Data Review Academic Year 2003, National League for Nursing.

About 1,700 people applied to non-BSN programs in 2002; of those, about two-thirds, or 1,099 people, applied to associate programs; the remainder applied to LPN programs.⁵⁹ According to the AACN, nursing programs in Utah—particularly those at the master’s degree and doctoral levels—are enrolling more students. In 2003, enrollment in master’s degree programs was up by 11 percent from the prior year, and enrollment in doctoral programs was up by 62 percent.

In baccalaureate programs, Utah schools reported that they denied a large proportion of qualified candidates, mainly due to insufficient faculty. In 2000, the University of Utah and Brigham Young University reported turning away nearly 50 percent of qualified candidates to their generic baccalaureate programs.

Non-BSN programs also are turning away qualified candidates, according to the NLN. About 250 applicants to non-BSN programs—or 15 percent of all applicants—were not accepted in 2002. In LPN programs, nearly 34 percent of qualified applicants were turned away and placed on wait lists, while 4 percent of applicants to associate programs were placed on a waiting list.

CONCLUSION

Although each State differs in terms of its supply and demand, certain overall trends can be seen in each of the five focus States. Demand—driven by population growth and an aging baby boomer cohort—is forecasted to intensify during the next decade and beyond. Each State has made improvements in reversing certain trends, including boosting applications, enrollments and

graduation rates. Also in their favor, the five focus States seem to be following the National trend of diversifying their nursing student and faculty populations.

That said, States are struggling with faculty shortages—worsened by aging faculty and sluggish enrollments in the educational track—and therefore are unable to accept the larger number of nursing students necessary to meet current and future demand. If States cannot resolve this problem, they will continue to experience a widening gap between supply and demand as too many nurses leave the field and too few nurses are available to replace them.

Chapter Two examines current State strategies aimed to expand the capacity of each State’s nursing programs. As the chapter shows, States are taking multiple approaches and are using limited resources for only the most critical needs.

1. U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Bureau of Health Professions (BHP), *Projected Supply, Demand, and Shortages of Registered Nurses: 2000-2020* (Rockville, Md.: HRSA, July 2002).

2. Ibid.

3. Ibid.

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2. STATE SUPPORT FOR NURSING EDUCATION

Every State studied here gives financial and other types of support for expanding nursing education programs. Certain States are doing better than others at expanding their pipeline of nurses. This chapter examines how States and other stakeholders fund and support nursing education—directly and indirectly—and what effect those strategies are having on the State’s nursing supply.

INTRODUCTION

Schools of nursing receive funding from various sources, including State appropriations; other Federal, State and local funds; student tuition; and direct financial assistance from private and foundation sources. In addition to State appropriations to higher education, States also channel additional Federal or State funds to nursing education, and some earmark certain funds—such as lottery or gaming funds—for a specific purpose, such as increasing enrollment or supporting faculty salaries.

States are not alone in supporting nursing education. Schools of nursing rely heavily upon contributions from the private sector—including hospitals, health systems and foundations—to expand their capacity. These groups invest financial and human resources in nursing education in each of the five States. For example, a group of Texas hospitals in the Gulf Coast region are working together to “loan” their staff to teach in area schools of nursing. This arrangement provided approximately 18 full-time instructors for an overall contribution of almost \$2 million annually.¹

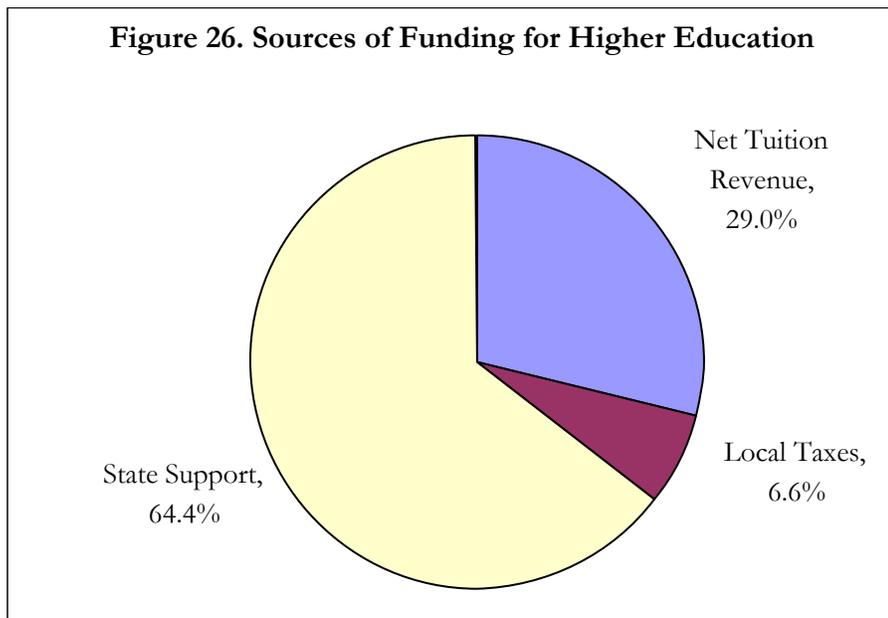
Coupled with targeted State investments in nursing education, some States are seeing improvements in their nursing supply. This chapter describes State and other support for expanding the pipeline in each of the five States. The first section gives an overview of State financing for higher education: how higher education is funded and how decisions are made about allocating funds. The next section examines other, more direct, funding for nursing education, including State support and public and private support for expanding the nursing pipeline. The final section examines nursing education trends in each of the five States and, whenever data exists, ties State and other investments to outcomes, such as increased enrollment and graduations.

STATE FUNDING OF HIGHER EDUCATION

States fund higher education through appropriations of State taxes, non-tax appropriations and other methods. Although State funding of higher education does not indicate how much funding actually reaches schools of nursing, it does describe the funding pool from which nursing education—among other disciplines—receives a large portion of its funds. In Texas, for example, formula funding accounts for approximately 95 percent of all State funding of professional nurse education in 2004-2005.² Therefore, the State’s overall funding of higher education is a rough measure of its funding for nursing education.

State budgets are showing signs of improvement; however, the American Association of State Colleges and Universities reports that colleges and universities “... top the list of State spending cuts, with total State appropriations for higher education down for a second year in FY 04.” Enrollment levels are up in many States, leading colleges and universities to increase tuition and fees and implement program cutbacks.³

Higher education institutions rely heavily on State funding sources. State and local governments provided nearly \$68 billion to public and independent higher education in 2003, accounting for 71 percent of all tuition revenue. The remaining \$28 billion from net tuition revenue (that is, money from student tuition and fees) brought to \$95.5 billion the amount available from State, local and student sources. The proportion of funding from State and local appropriations and student sources (i.e., fees and tuition) are illustrated in figure 26.



Source: State Higher Education Executive Officers, *State Higher Education Finance Report*, 2003.

Among the five States studied here, the proportion of State support varies from a low of 57 percent in Indiana to a high of 86 percent in Georgia. As shown in Table 4, Indiana receives a higher percentage of total revenues from tuition than do other States, while California receives the smallest percentage.

Table 4. State, Local, and Net Tuition Revenue, by State, FY 2003

State	Total State, local and net tuition revenue	Total State sources (%)	Local tax appropriations (%)	Net tuition revenue (%)
California	\$13,225,064	73.1%	15.0%	11.9%
Georgia	\$2,396,850	86.1%	--	13.9%
Indiana	\$2,313,569	57.3%	--	42.7%
Texas	\$7,687,356	64.8%	7.9%	27.3%
Utah	\$863,532	71.1%	--	28.9%

Source: State Higher Education Executive Officers, *State Higher Education Finance Report*, 2003.

APPROPRIATING STATE FUNDS TO HIGHER EDUCATION

Beginning in the 1950s, State legislatures began providing support to nursing programs offered at higher education institutions. A variety of mechanisms are used to appropriate funds. In many States, funds are allocated to an institution as a block grant to support several disciplines, including nursing. The amount of these block grants is based on a number of factors, such as the historical and actual costs for existing faculty and academic programs, plus a percentage for support services and administration. Once a college or university receives the grant funds, local institutional policies and procedures determine the allocation of the block grant among the schools, colleges and departments.

Recognizing the needs and costs associated with various types of programs and institutions, many States developed a formula funding mechanism that attempts to objectively and fairly distribute State funds to educational institutions that teach similar disciplines but have different missions.⁴ The factors in a State's formula might include head count, number of positions, full-time students, and staff and credit hours.

On the one hand, formula funding is an equitable process for distributing State funds and minimizing the political battles over limited State resources. On the other hand, however, some argue that formula funds do not allow States to direct funding to programs and initiatives that reflect the State's needs and priorities. In response, many States determine a "base" level (based on quantitative factors, such as number of students or credit hours) and then use different non-formula means to provide additional funds. The five States' processes for funding higher education are described below.

California

The three separate public systems in California include the University of California, California State University and the community college system. The State provides about 75 percent of the necessary funding to support these three systems. According to the Legislative Analyst's Office, funding for the University of California and California State University is developed by using the previous year's base funding and adjusting it to reflect inflation. A formula is then used to determine the cost of funding enrollment growth, and this cost is added to the base appropriation.

In addition to State appropriations, the systems receive student fees that supplement the State's contribution and account for about 40 percent of total funding for education. The regents of the university system set fees for the University of California and the California State system, while the Legislature sets fees for the community colleges.⁵

California differentiates funding by credit status and institution. Therefore, students enrolled in noncredit courses—such as basic skills and English as a Second Language—receive a lower per-student funding rate than those enrolled in credit courses. Moreover, the State provides a different per-student funding rate for each system, with the highest funding rate for students at the University of California, a lower rate for students enrolled in the California State University system, and the lowest for California community college students.

California does not have different funding rates for different educational levels and programs; therefore, a student enrolled in a school of nursing is funded at the same level as a student enrolled in English, and a graduate student is funded at the same rate as an undergraduate student.⁶ Although this process may result in under-funding of certain higher-cost programs, it also over-funds other lower-cost programs. As a result, funds from lower-cost programs subsidize higher cost programs.⁷

Georgia

In Georgia, State appropriations for higher education include appropriations to the University System of Georgia, the Georgia Student Finance Commission (which provides State scholarship programs) and the Department of Technical and Adult Education. The majority of the budget is calculated according to a quantitative formula that includes enrollment, faculty salaries and square footage. The remaining non-formula portion funds special initiatives at institutions.⁸

Following budget cuts in higher education—totaling \$68.7 million in 2004⁹—the Governor's 2006 budget proposal would invest more than half the State's budget in education. Among the Governor's recommendations: fully funding the university system's enrollment growth and maintenance and operation of the system's facilities.¹⁰

The State Board of Regents also provides financial rewards to innovative and efficient programs. These "Best Practices" awards reward programs of excellence in finance and business, academic affairs, student services and information technology. Among the recipients in 2004 was the Georgia Perimeter College's Hybrid Fellowship Program, which combines face-to-face classes with on-line instruction, reducing classroom space requirements by 50 percent.¹¹

Indiana

Indiana uses a mix of block grant and formula funding for its institutions of higher education. The budget is based on previous appropriations and these funds are added to (or subtracted from, in

cases of enrollment decreases), based on several formula and non-formula components, such as growth in enrollment, research expenditures, new facilities operations and other items. In addition, the legislature sometimes provides additional appropriations for new or expanded programs; in 2005, when it added \$1.5 million to Ivy Tech State College's base appropriation to expand its associate degree nursing program Statewide.¹²

Texas

The Texas Higher Education Coordinating Board administers traditional formula funding for 62 nursing education programs. The main mechanism for funding public higher education is driven by a formula based on several factors, such as instructional cost and institutional support. In addition to the formula-driven funding base, State appropriations also provide non-formula-based supplemental funding for special items.¹³ Formula funding for community colleges, academic universities and health-related institutions increased from \$197 million in 2002-2003 to \$207 million in 2004-2005.

Utah

In Utah, institutions of higher education distribute funds to nursing programs based on a State funding base that also accounts for credit hours. If a program grows over the base level, the program will receive additional funding for the growth. However, the State has not been fully funding growth to higher education institutions; thus, the nursing programs are not receiving full funding for the growth.

Other State Processes

In response to concerns that State appropriations be directed toward specific priorities and outcomes—such as meeting the State's economic and workforce needs—some States have considered funding based on institutional performance. In 2002, the New Mexico Commission on Higher Education named a Blue Ribbon Task Force to evaluate the current funding method and recommend changes to reward successful institutions that are meeting the State's economic needs. The task force developed a base-plus-incentives funding model—comprised of several base or formula factors—that includes current appropriations, compensation and inflation. In addition to the base funding, the formula would provide incentives to address the nursing and teacher shortage and would allocate funds to institutions through a competitive proposal process. Virginia developed a similar funding formula that offers incentive funding for performance on outcome measures such as graduation and retention rates, exam passing rates, post-graduate placement and faculty productivity.

In California, the Legislature recently directed the Chancellor of California State University to provide supplemental funds to universities to establish an entry-level master's program in nursing. The Governor signed into law the Entry Level Master's Nursing Programs Act in 2004.

A CLOSER LOOK AT STATE FUNDING FOR NURSING EDUCATION

The methods by which States fund higher education and specific disciplines such as nursing vary considerably. In some cases, for example, schools of nursing receive more funds than other programs because they are costly to operate; in other cases, nursing is funded at the same level as other disciplines.

TARGETED FUNDING AND SUPPORT FOR NURSING EDUCATION

Although State appropriations to higher education account for the majority of nursing education funds, many States are finding ways to channel additional State funds directly to nursing education to help programs increase their capacity and to help recruit and retain students and faculty.

Assessing the effects of State programs and resources on the nursing supply is difficult for two major reasons. First, many examples of targeted State support for nursing education have occurred recently; therefore, not enough time has elapsed to evaluate the effect of State funding on supply. Second, as described earlier in this section, States are implementing strategies in conjunction with other public and private stakeholders, including hospitals and other employers, schools of nursing and higher education, and the Federal government. Although these partnerships are proving successful, detecting the effect of State funds or other support is difficult. Some concrete examples exist where a State's investment is producing positive outcomes. Georgia's Health Professions Initiative, for example—a public-private partnership—is expected to produce more than 1,300 new nurses.

This section examines pertinent trends in the nursing supply in each State—specifically in admissions, enrollment and graduations—and, whenever possible, identifies successful approaches. The section also includes summaries of the major challenges and opportunities present in each State.

EXPANDING PROGRAM CAPACITY

Demand for nurses is high; so, too, is the demand for nursing education “slots.” At the center is a bottleneck that turns away qualified students on the one end and that fails to produce the number of nurses needed by tomorrow's health care system on the other. To address this bottleneck, States are attempting to expand nursing school capacity to allow for expanded enrollments. Standing in the way of program expansion, however, is a lack of faculty to teach the increased numbers of courses and students. Lacking more qualified faculty, programs continue to limit enrollment (since the faculty-to-student ratio largely determines program capacity). As a result, some States are taking legislative and other steps to increase the pool of current and future faculty members.

States also are targeting funds to increase financial assistance for potential nursing students, and therefore, remove a formidable obstacle for many. By offering certain incentives—such as loan repayment and scholarships—States are attracting a larger and more diverse pool of students. In addition, these programs can help to ensure that recipients practice in shortage areas or work for a certain number of years in order to receive all the financial benefits.

Faced with serious budget constraints, many States are finding ways to direct existing Federal funds into nursing education efforts. For example, most State Medicaid programs voluntarily pay for graduate medical education (GME) as part of their service payments to teaching hospitals (similar in methodology to how Medicare pays for physician training). Medicaid programs in as many as 12 States—Iowa, Indiana, Louisiana, Maine, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, North Dakota, Oregon and South Carolina¹⁴—also allow or require that such payments be directed to support clinical training of graduate nurses in programs affiliated with or operated by teaching hospitals. This precedent provides the opportunity in many States for Medicaid to pay for graduate nursing education, particularly if a State uses the intergovernmental transfer of State funds to capture additional Federal Medicaid matching funds for this purpose.

The following are examples of strategies States are using to invest directly—with Federal and State funds—in nursing education.

California. The California Health Professions Education Foundation is a nonprofit organization that administers scholarships and loan repayment grants to underrepresented and economically disadvantaged students. The foundation awards scholarships and loan repayment grants through two funds: the Health Professions Education Fund, which is largely funded through private and foundation sources, and the Registered Nurse Education Fund, supported through a \$10 surcharge on RN license renewals. The RN Education Fund pays for the following three scholarship and loan repayment programs:

- The Associate Degree Nursing Scholarship Program, established through a 2003 law, provides recipients up to \$8,000 per year to help associate degree students located in shortage areas obtain a B.S.N. degree within five years of obtaining an associate degree.
- The Registered Nurse Education Scholarship Program offers up to \$10,000 to students in baccalaureate degree nursing programs who agree to practice in underserved areas.
- The Registered Nurse Education Loan Repayment Program provides up to \$10,000 over a two-year period to repay loans in exchange for practice in an underserved area.

California also directs significant Federal funding to nurse and health care worker training. All States receive Federal Workforce Investment Act (WIA) funds and allocate the money to support worker training programs for entry-level occupations. Many of the program's recipients are displaced workers or are enrolled in welfare programs. States are actively working to help these individuals secure employment through training or retraining. Among the job classifications targeted for the training programs are nurse aides and practical nurses (As many as 12 States also have used WIA funds to provide job training for RNs.).

In 2002, the Governor announced a \$60 million Nurse Workforce Initiative that used Federal WIA funds to address the State's growing nurse shortage. The State distributed \$27 million in grants to 21 regional partnerships with the goal of producing 5,000 new vocational and registered nurses. In addition, the initiative provided \$6 million to address local needs for psychiatric technicians in the Central Valley.

The WIA funds continue to be an important and stable source of funding for nursing education efforts in California. The California 2005-2006 budget proposes to use \$35.8 million of WIA funds to train nurses and other health care workers. Specifically, the Governor proposes using the funds to expand the capacity of community college nursing programs and to expand the supply of nursing faculty.¹⁵

Georgia. In Georgia, the State Department of Labor and the Woodruff Foundation combined funds to provide service cancelable loans to prospective nurse faculty. The Georgia Nursing Faculty Scholarship Program, managed by the Georgia Student Finance Authority, is "... designed to encourage Georgians to enter—and remain in—the nursing education profession."¹⁶ Funded with \$1.1 million from the Department of Labor, \$500,000 from the Woodruff Foundation and an in-kind contribution from the Georgia Student Finance Authority, the program provides funding for

students to enroll in graduate level programs at public or private universities in Georgia. After graduating, recipients can repay the loan by serving as a faculty member in Georgia; for every year of teaching, they are eligible to cancel \$2,500 in loans. Over a five-year period, this public-private partnership will produce an additional 25 faculty. Another positive outcome is that, since programs are spread throughout the State, the program should provide faculty members ready for hire across Georgia, particularly in shortage areas.

In an effort to expand faculty and student enrollment in Georgia, lawmakers directed State funds into nursing education through the State's Intellectual Capital Partnership Program (ICAPP). Beginning in 2002, the program leveraged \$2.1 million in State funding with \$2.4 in private funding, resulting in a \$4.55 million public-private partnership between Georgia health care employers and State universities. The program matches employers with public colleges and universities to produce graduates in nursing and other fields. State funds are used for instruction and expenses, while schools of nursing provide the education and clinical experiences. Health care providers make in-kind contributions of equipment, staff time, laboratory and classroom space—valued at \$2.45 million—and agree to hire graduates when they complete the program.

State and private sector investments, joined through the ICAPP Health Professions Initiative, are producing more nursing graduates in Georgia. The Intellectual Capital Partnership Program is expected to produce more than 1,300 new graduates by 2006. As shown in Table 5, schools of nursing will produce up to 635 nurses and other specialists as a result of the State's first-year, \$2.1 million commitment. With the 2004 announcement of the State's \$2.05 million investment in the program's second phase, another 700 nurses are expected to be ready for hire in 2006.¹⁷ Employers will hire these program graduates in 19 communities throughout the State at program completion.

Table 5. Georgia Nursing Graduate Outcomes: Phase One and Phase Two

Schools	Program Type	Phase 1 (2002)	Phase 2 (2004)
		Total Graduates Produced*	Expected Graduates at Program End
Abraham Baldwin Agricultural College	Associate	46	23
Armstrong Atlantic State University	BSN	38	266
Augusta State University (added in 2003)		80	
Clayton College and State University	BSN	40	60
Columbus State University	BSN	95	114
Darton College	Associate	108	
Floyd College	Associate	32	55**
Georgia Perimeter College	Associate	24	20
Georgia State University	BSN	24	48
Gordon College (added in 2003)	LPN	30	
Kennesaw State University	BSN	71	25
Middle Georgia College	Associate	47	60
Total		635	671

*Includes graduates who have already completed program and those expected to complete by program's end.

**In phase two, Floyd College will create 30 associate degree graduates and another 25 in partnership with Kennesaw State University.

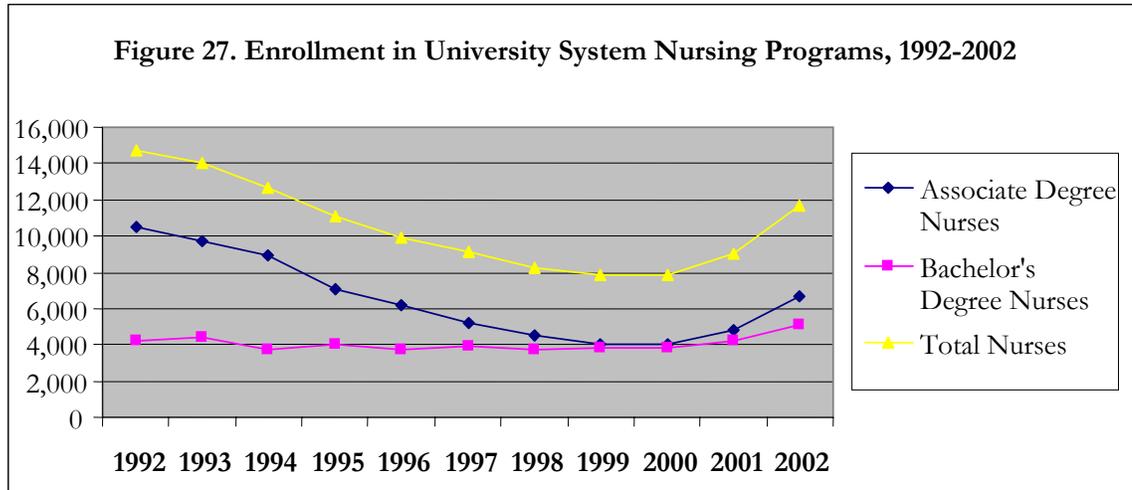
Source: Board of Regents of the University System of Georgia, August 2004.

Georgia invests significant funds in raising academic performance in all educational phases and targets resources to boost achievement among racial and ethnic minorities. The University System's P-16 Initiatives received a \$34.6 million grant from the National Science Foundation to fund the Partnership for Reform in Science and Mathematics (PRISM) Program. Its goal is to improve educational achievement levels and close the performance gaps in science and math among Georgia's students

Georgia also earmarks a portion of State lottery funds for higher education, including nursing education, through its Helping Outstanding Pupils Educationally (HOPE) scholarship program and its service cancelable loan program. The HOPE scholarship program is funded completely through lottery funds. Eligible residents may receive financial aid plus a \$300 book allowance (up to \$3,000 annually for those enrolled in an eligible private college or university in the State).

Although it is difficult to attribute State actions to specific outcomes, it does appear that the combined efforts of the public and private sectors are making a difference in Georgia. As a result of increased admissions standards and the HOPE scholarship, students who enter the University System of Georgia are more qualified and more diverse than in years past. Specifically, more students who enter the system have completed the college preparatory curriculum course requirements, thus reducing the demand for learning support and remedial courses.¹⁸ Nearly 4,000 more students were enrolled in nursing programs in 2002—an increase of nearly 50 percent from 2000. This upward trend reverses an eight-year trend of declining enrollments.

As shown in Figure 27, 11,698 students were enrolled in 2002, driven by significant increases in both associate and bachelor degree programs. During that two-year period, nearly 1,300 more students enrolled in bachelor degree programs, and more than 2,600 students were enrolled in associate degree programs—gains of 33 percent and 65 percent, respectively. For the first time, baccalaureate level enrollment exceeds 5,000.¹⁹

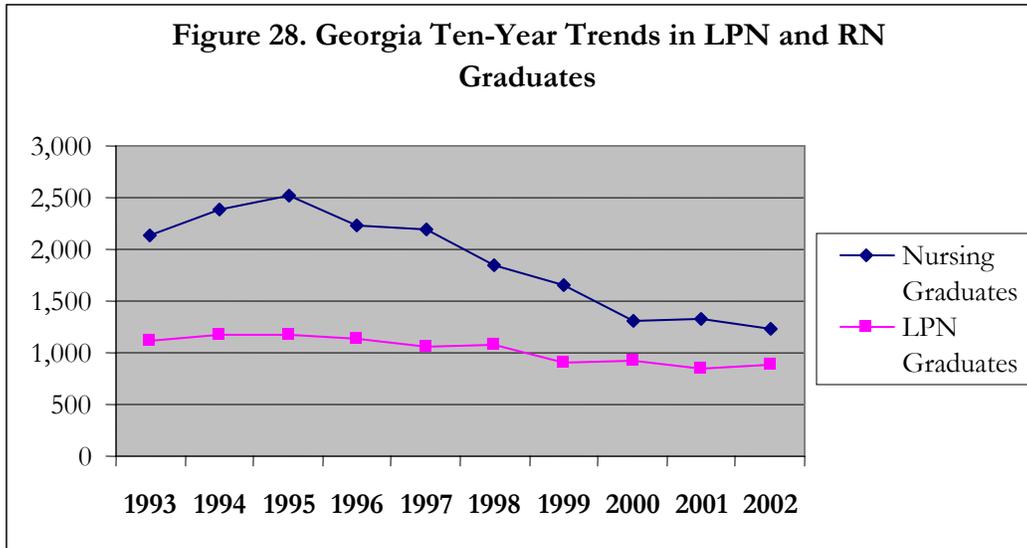


Source: Board of Regents, University System of Georgia, Office of Research and Policy Analysis, 2002.

Although these trends are promising, they illustrate the uphill battle many States face as they attempt to change courses and restore enrollments to previous levels. Although 2002 enrollment is higher than any year since 1995, it still falls short of 1993 enrollment, which peaked at more than 14,000.

Still, the trend is now moving in the right direction and, as a result of increasing enrollments, the number of graduates and licensed nurses is expected to see similar increases as these students move through the system.

Although enrollment levels have risen in recent years, the number of graduates has not. During the past decade, the number of nursing graduates from university system programs has dropped by more than 42 percent, while the number of LPN graduates from the State's technical school system has dropped by 21 percent (see Figure 28).

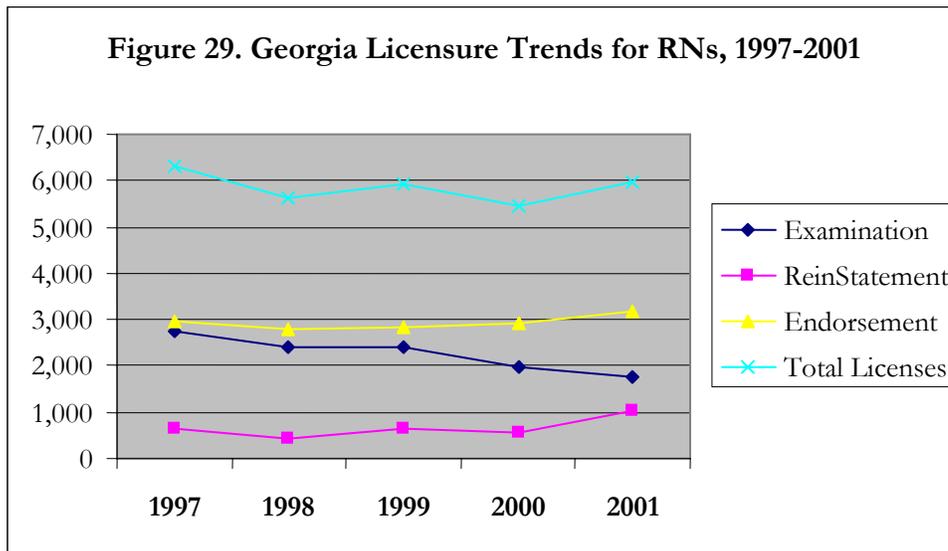


Source: Health Care Workforce Policy Advisory Committee, Georgia Department of Community Health, *2003 Annual Report*.

This trend is expected to reverse as the higher number of students enrolled in programs (Figure 27) moves toward graduation. As long as programs retain their students, the graduation trends should begin to more closely reflect the increasing numbers of students enrolled in programs.

Obtaining a license is the final step in becoming a nurse; therefore, licensure data gives an estimate of the number of new nurses available for work. According to Georgia’s Health Care Workforce Policy Advisory Committee’s 2002 report, “... increasing the rate of licensure through exam is critical to Georgia’s ability to meet the long-term health care needs of her citizens.”²⁰

As shown in Figure 29, the overall licensure trend is positive—in 2001, the State issued about 500 more licenses than in the previous year. However, a closer look shows that the number of licenses issued through examination continued a steady five-year decline. In 2001, 1,775 new graduates passed the examination (a prerequisite to obtaining a license), down by more than 1,000 from 1996.



Source: Board of Regents, University System of Georgia, Office of Research and Policy Analysis, 2002.

Indiana. In 1990, the Indiana General Assembly created the Nursing Scholarship Fund, funded through the general fund, which encourages more people to pursue a nursing career in Indiana. The State Student Assistance Commission administers the program and allots the funds to approved colleges and universities. To qualify, students must be Indiana residents and agree to work as a nurse in Indiana for at least the first two years following graduation. In return, students are eligible to receive up to \$5,000 annually for tuition and fees.

In 2001, the General Assembly adopted many of the recommendations made by the Health Care Professional Development Commission, including one that created the Indiana Health Care Professional Recruitment and Retention Fund. The fund provides loan repayment for professionals, such as primary care nurse practitioners and certified nurse midwives, who agree to practice in shortage areas. In addition, the legislation allowed the State Department of Health to apply for grants from Federal or private sources to supplement the State's contribution. As a result, the State received matching Federal grant funds from HRSA.

Texas. In response to growing concern about a worsening nursing shortage and lagging enrollments, Texas lawmakers found ways to channel additional State funds—above and beyond the State's formula funding—into schools of nursing that demonstrated high enrollment increases. In 2001, the Legislature passed the Nursing Shortage Reduction Act, which provided new general revenue to expand nursing enrollments in the State's community colleges, universities and health science centers. The goals of the legislation were to:²¹

- Provide resources to increase enrollments and support faculty salaries;
- Encourage innovative ways to recruit and retain students;

- Amend the nursing financial aid program to allow more flexibility in how funds are administered to reach most successful recruitment and retention strategies;
- Increase the pool of qualified faculty by expanding financial aid available for students to pursue post-graduate education and enter teaching;
- Establish a nursing workforce data center to help policymakers plan and monitor nursing workforce; and
- Reallocate money from the tobacco settlement fund to use exclusively for nursing education.

The legislation created a Dramatic Growth Fund to channel up to \$22.5 million of existing State funds to fast-growing nursing programs to help increase enrollments and faculty recruitment and retention. Although this money already was available to universities, the law specified that nursing programs that met certain growth levels now had first claim to the funds. Schools could use the funds to support faculty salaries and operating funds. To help fill the faculty need, for example, the legislation permitted nursing programs to give in-State tuition to out-of-State nurses who wanted to pursue a post-graduate degree in Texas; in exchange, they had to agree to teach at a nursing college in the State.

In addition to the Dramatic Growth Fund, the law reallocated tobacco settlement funds into nursing innovation grants that provided \$3.1 million for enrollment and faculty recruitment and retention. All the tobacco settlement funds were awarded in 2001-2003.

In 2003, lawmakers passed legislation that continued dramatic growth funding for community colleges and academic universities. Facing a growing budget deficit, the amount of dramatic growth funds available to schools of nursing dropped significantly in the 2003-2005 biennium—to \$5.6 million, of which \$1.6 million is available for community colleges and \$4 million for general academic institutions. During this biennium, the amount available from the tobacco settlement funds, however, increased slightly to \$4.9 million.

In addition to regular formula funding—totaling \$207 million in 2004-2005—the State provides special item funding for professional nurse education. As shown in Table 6, more than \$10 million in dramatic growth funds were available in 2002-2003, along with \$3 million in tobacco fund earnings. Up to \$22.6 million in Dramatic Growth funds were available in the 2001-2003 biennium; however, schools did not receive the maximum amount available because, in part, they did not increase enrollment enough to earn all the allocated funds. To be eligible, institutions had to increase enrollment by 3 percent over 2000 levels in 2001, and by 6 percent over fall 2000 levels in 2002. Table 6 shows the amount of dramatic growth funds available to schools of nursing and the actual amounts awarded.

**Table 6. Texas State Funding for Professional Nurse Education
(in millions)**

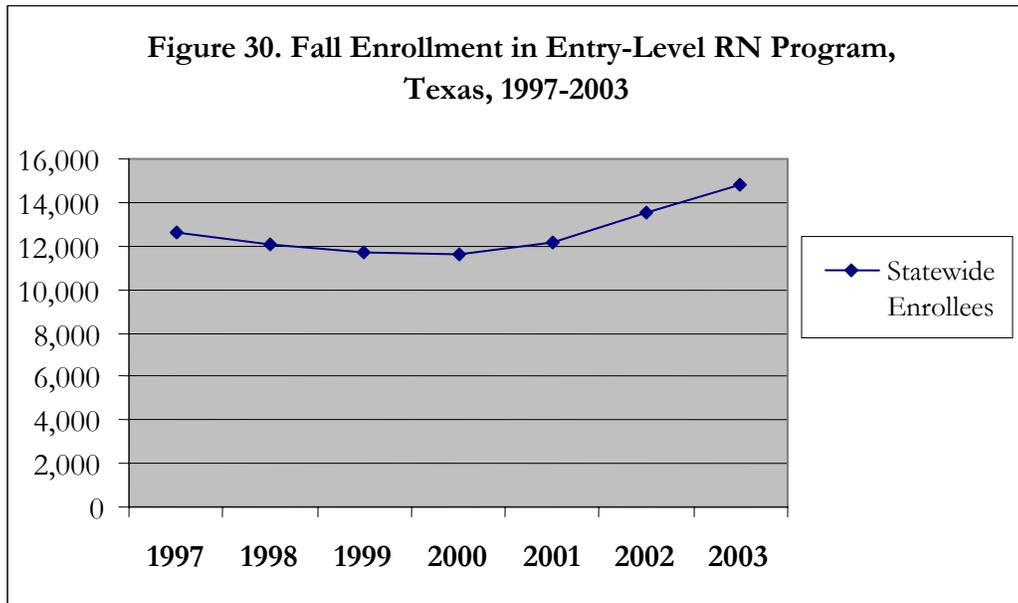
TYPE OF FUNDING	FY 2002 - 2003	FY 2004 - 2005	FY 2006- 2007 (projected)
Regular Formula Funding			
Community and Technical Colleges	\$77.3	\$83.1	
General Academic Universities	72	75.9	
Health-related Institutions	47.5	47.8	
Subtotals	\$196.8	\$206.8	
Special-Item Funding			
<i>Dramatic Growth</i>			
Community and Technical Colleges	\$5.6	\$1.2	\$7.1
General Academic Universities	3.7	4	5.3
Health-related Institutions	1.6		5
Subtotals	\$10.9	\$5.2	\$17.4
<i>Tobacco Fund Earnings</i>			
Community and Technical Colleges	\$1.8	\$1.2	
General Academic Universities	0.7	2	
Health-related Institutions	0.6	0.7	
Subtotals	\$3.1	\$3.9	\$4
<i>Nurse Success Supplement</i>			
Community and Technical Colleges			\$8
General Academic Universities			8
Health-related Institutions			4
Subtotals			\$20
<i>Scholarship and Loan Programs</i>	\$0.8	\$0.5	\$4.9
<i>Higher Graduate Education Rates</i>			\$1.4
GRAND TOTALS	\$211.6	\$216.4	\$47.7

Source: Texas Higher Education Coordinating Board and the WorkSource for the Gulf Coast Region's Health Services Steering Committee, January 2005.

Although it is too soon to evaluate the effect of the additional special item funds on expanding the nursing supply, anecdotal evidence suggests that the increased funds have made it possible for schools of nursing to increase enrollment.²² According to the Texas Higher Education Coordinating Board, the State's nursing programs "... have done a good job of increasing interest in nursing, admitting more students, and graduating more RNs."²³

Moreover, the trends indicate that the State's schools of nursing have seen a turnaround in enrollments and graduations. According to the Texas Nurses Association, enrollment levels began

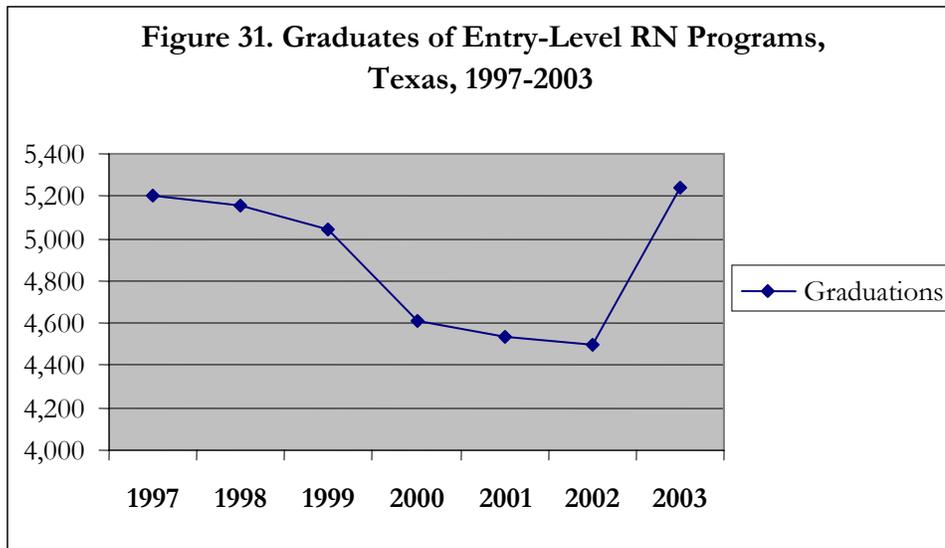
climbing between 2000 and 2003, from 11,589 to 14,850—for a growth of 28 percent. This followed a 3 year decline in enrollment from 1997 through 2000, as shown in Figure 30.



Source: Data prepared by the Texas Nurses Association and presented by Carolyn Gunning, Texas Women’s University at July 2004 NCSL Conference

Entry level gains are occurring in all RN levels, including diploma and associate degree programs, where first-year enrollment nearly doubled from 2,653 in 1999 to 5,181 in 2003. Among BSN programs, first- year enrollment jumped from 1,434 to 3,404. When combined, first-year entering enrollment in RN programs increased by 87 percent between 1997 and 2003, according to the Texas Higher Education Coordinating Board.

Similarly, as shown in Figure 31, graduation levels in programs leading to initial RN licensure—that had declined every year from 1997 through 2002—increased between 2002 and 2003, when graduations jumped by 17 percent, from 4,495 to 5,243.



Source: Data prepared by the Texas Nurses Association and presented by Carolyn Gunning, Texas Woman's University at July 2004 NCSL conference.

In the 1 year period between 2002 and 2003, the AACN reported that enrollment in Texas nursing programs increased significantly, by almost 11 percent in entry-level programs, by 16 percent in master's degree programs and by 25 percent in doctoral programs.

Despite the good news, the faculty shortage persists in Texas. According to the Texas Higher Education Coordinating Board, graduates from master's and doctoral programs declined by 23 percent between 1994 and 2003. So, although enrollment in graduate nursing programs is increasing, the "total number of graduates is at a 10 year low."²⁴ Moreover, of those seeking higher degrees, just 1 percent is pursuing teaching. In sum, the faculty shortage persists.

- Three health-related institutions that offer doctoral degrees graduated only 44 graduates between 1994 and 2003, according to the Texas Higher Education Board.²⁵ (These three institutions represent half of all the state institutions that offer a doctoral degree in nursing.)
- Average entering class size of RN licensure programs increased by 108 percent from 1999 to 2003; however, the average FTE faculty increased only by 13 percent.
- A coordinating board survey of State nursing deans and directors found that the ability to hire new faculty was the greatest impediment to increasing enrollments in nursing programs. Specifically, the disparate salaries between nurses in academia versus those in clinical practice was seen as the greatest hiring obstacle.

Utah. In 2004, the Utah Legislature dedicated funding to Utah's seven State-funded nursing programs. The \$675,000 appropriation—the first dedicated to nursing education—was distributed in varying amounts to associate and baccalaureate programs with the goal of expanding the number of nurses in Utah. The Legislature required schools to match State funds.

The State's largest beneficiary, the Utah College of Nursing, plans to use its appropriation of \$150,000 to hire two new doctoral-level faculty who will be able to train 20 additional people to be nurse educators.²⁶

Utah provides grants to help LPNs and RNs repay their educational loans in exchange for practicing in a shortage area for at least two years. The average grant amount under the Statewide Nurse Education Financial Assistance Program is \$15,000. The program is funded by State and Federal funds, including the National Health Service Corps' State Loan Repayment Program (NHSC SLRP).

In addition, the Utah State Office of Education administers the School Nurses Incentive Program, which provides grants of from \$200 to \$26,500—averaging \$15,000—to improve the availability of RNs in public schools. The State funds do not exceed one-third of program costs; local districts provide at least two-thirds of program costs.

OTHER RESOURCES FOR NURSING EDUCATION

Schools of nursing are expanding their capacity and increasing the diversity of their students and faculty with the help of several Federal programs. The Nursing Reinvestment Act of 2002 (NRA, PL 107-205) amended the Nursing Education and Practice Improvement Act of 1998. The legislation, which provides support for workforce development, includes nurse faculty loans, loan repayment and scholarships, funds for nursing workforce diversity, and funds for advanced education nursing.

The 2004 nurse reinvestment appropriations totaled \$141.9 million and funded six major efforts, including:

- Advanced Education Nursing, \$58.6 million;
- Nursing Workforce Diversity, \$16.4 million;
- Nurse Education, Practice and Retention, \$31.8 million;
- Loan Repayment and Scholarships, \$26.7 million;
- Nurse Faculty Loan, \$4.9 million; and
- Comprehensive Geriatric Education, \$3.5 million.

Among the types of programs funded through the NRA are Web-based accelerated BSN programs, distance education programs designed to remove barriers for RNs who do not live close to a school of nursing, nursing residency programs to help RNs entering specialty fields, and career ladder programs.

Each of the five States received funding from one or more of the above programs. Some examples of Federally funded programs in the five States follow. For example, the Loma Linda University School of Nursing in California received funds for its Pipeline to Registered Nursing program, which has as its goal the creation of a more diverse workforce. The university uses the funds to encourage young, ethnically diverse elementary, middle and high school students to pursue a

nursing career and also provides retention activities to help students succeed in their nursing programs.

The Medical College of Georgia's School of Nursing—the State's "primary institution for the training of health professionals"—uses Federal workforce diversity grant funds to support various activities aimed at increasing diversity in the school's baccalaureate nursing program. The school uses funds to help recruit and prepare future nursing students—in high school and a pre-nursing program at Paine College—by exposing them to the profession and providing academic guidance and support. In addition to recruitment strategies, the grant also funds retention strategies aimed at helping students succeed. One example is a supplemental instruction course that helps to increase academic performance and retention through study strategies and tutoring.²⁷

The Ivy Tech State College in Indiana received funds for its Nursing Careers Advancement Program, which helps nurses advance their education. In addition to helping RNs advance, the program also focuses on attracting nontraditional students into the nursing pipeline, including males and racial and ethnic minorities. In addition, students in rural areas will participate via distance education.

Federal funds also support the Consortium to Advance Nursing Diversity and Opportunity at the University of Texas Health Sciences Center at Houston, as well as a Closing the Gap project at the University of Texas at Arlington, which aims to increase nursing education opportunities for racial and ethnic minorities, and for individuals from disadvantaged backgrounds.

In 2004, HRSA provided \$736,831 to the Utah College of Nursing for its Diversity Recruitment, Retention and Leadership Development Program. With these funds, the program will offer stipends and scholarships of from \$3,000 to \$5,000 to 44 baccalaureate students during the next three years.²⁸

In addition to funding from U.S. DHHS, States also are benefiting from Federal workforce development support from the U.S. Department of Labor (DOL). Georgia was one of four States to receive a Federal grant for \$754,000 to train dislocated workers for health care jobs where there are shortages. The Healthcare Retraining Partnership Initiative Demonstration Grant will support a number of activities, including attracting new individuals to the health professions, providing so-called bridge training (helping current health care workers upgrade their skills), faculty training and various youth activities designed to attract more students into the pipeline. They also are working with the Department of Workforce Services to explore using Federal DOL funding.

PRIVATE AND OTHER SUPPORT FOR NURSING EDUCATION

Each of the five States has benefited from private sector and foundation support. In California, one media source reported that hospitals alone have helped California's community colleges and universities expand enrollment in nursing programs by up to 20 percent between 1999 and 2000. These contributions have resulted in improved enrollment and retention. Some examples include the following.

- In 2003, the Gordon and Betty Moore Foundation approved a \$110 million Betty Irene Moore Nursing Initiative to "improve the quality of nursing-related patient care" in the San Francisco Bay area. The foundation is funding projects that help increase the supply of RNs and increase the number of training programs. In 2004, the initiative awarded a \$5.5 million grant to the San Jose State University School of

Nursing to increase the number of graduates and educate additional nursing faculty. Among the outcomes of this project will be an additional 45 faculty members over a five-year period.²⁹

- The Washington Hospital District's board awarded a \$1.5 million grant to Ohlone College for its nursing program. The college will use the money to hire two full-time faculty members, allowing it to enroll at least 18 additional students per year.
- California's Sutter Roseville Medical Center donated \$750,000 to Sierra College to expand its online nursing degree program—enabling the program to add 20 more students per year for two years to its on-line associate nursing degree program, beginning in 2006. This donation follows a \$15 million pledge Sutter made to help Sacramento City College educate hundreds of new nurses.³⁰

A group of Georgia hospitals contributed funds to nursing schools for scholarships, faculty salaries, tuition reimbursement, lab supplies and other educational resources. From 1999 to 2002, they provided more than \$21 million in educational support for nursing students and programs.

The Health Care Summit Commission in San Antonio, Texas—a partnership of local and State governments, foundations, hospitals and others—committed to raising \$750,000 to increase the number of graduating nurses at area schools by 500. These funds are used to finance student scholarships and new Faculty salaries.

In Utah, a group of hospitals provided one-time funding to help fund more nursing program slots.³¹ In addition, the Emma Eccles Jones Foundation donated \$1 million to renovate the college for nursing research.

States and others are addressing the nursing shortage on various fronts. In addition to the above financial strategies, States, health care providers, educational institutions and others also are attempting to expand the nursing supply through other approaches, including improving the workplace, enhancing data collection and planning efforts, and streamlining educational requirements.

STRATEGIC PLANNING AND DATA COLLECTION

In 1999, California lawmakers passed Assembly Bill 655 (1999 Cal. Stats., Chap. 954), which required the chancellors and presidents of the four higher education systems in California to develop a joint strategic plan for expanding enrollment in basic RN education programs. The California Strategic Planning Committee for Nursing prepared the report in 2000. In response to the report's recommendations for more funding, the Legislature earmarked \$18.5 million for implementation; however, the governor vetoed this increase in July 2000.³²

Also in California, the Office of Statewide Health Planning and Development operates the Health Careers Training Program, which is designed to promote public and private partnerships and develop training and funding resources and jobs for unemployed and dislocated workers. The program's goals include promoting community collaborations, identifying funding sources for recruitment and retention activities, identifying curriculum and training needs, and developing innovative employment opportunities.³³

Several States, including Georgia, established workforce commissions or advisory groups to gather information about nursing supply and demand and to develop strategies for workforce planning. The General Assembly passed legislation in 2001 creating the Healthcare Workforce Policy Advisory Committee. The committee was charged with monitoring and addressing the workforce supply, demand, distribution, mix and quality of health care professionals. By the end of its first year, the committee published a report, *Promoting Health Care Workplace Excellence* and includes among its accomplishments action by the legislature to permit a tripling of available funding for service cancelable loans for health professions students.

In 1995, the Indiana General Assembly directed the Indiana Health Care Professional Development Commission to study the current and future health care needs, develop long-range planning goals, and submit recommendations to the General Assembly on how to best “... achieve a continual flow of health care professionals, appropriately distributed geographically and by specialty and type.”³⁴ At the commission’s recommendation, for example, in 1997 and 2001, the Indiana State Department of Health (ISDH) and the Indiana Health Professions Bureau (HPB) conducted the Indiana Registered Nurse Survey. The goal of the project was to gather data on the supply and distribution of RNs in Indiana.

In 2003, the Indiana Nursing Workforce Development Steering Group, a volunteer body, underwent a planning and development phase and became the Indiana Nursing Workforce Development Coalition Inc. The coalition’s vision is to develop a “... collaborative strategic Statewide plan for nursing resources and for communicating a consistent message regarding nursing.”³⁵

The Department of Health set up the Indiana Health Care Professional Development Commission to come up with a strategic plan to ensure an adequate supply and distribution of health care professionals, including nurses.

In Texas, the Nursing Shortage Reduction Act of 2001 created a nursing workforce data center to inform policymakers about nursing supply and demand and to help guide workforce planning efforts. (The workforce center was authorized but was not funded until 2003 when lawmakers funded it through increased licensing fees for nurses.)

In Utah, the Nursing Leadership Forum is comprised of representatives from various organizations—including deans from all nursing schools, chief nurse officers from several hospitals, the Utah Nurses Association, the Board of Regents, the Utah Nurse Managers and the State Health Department.

SCHOOLS OF NURSING STREAMLINING REQUIREMENTS

Streamlining and simplifying academic requirements represent one approach for expanding the supply of nurses. By ensuring a standard set of required courses, States not only facilitate transfers among State schools of nursing, but also eliminate redundant coursework and thus reduce the time needed to complete a degree for individuals who switch institutions or upgrade their degree (from a licensed practical nurse to registered nurse, for example).

In 2002, the California Legislature passed a law that encouraged community colleges and universities within the California State University system to standardize all nursing education program prerequisites and establish articulation agreements with campuses.

The Georgia Perimeter College offers two tracks for students to receive an associate degree in nursing: a generic, two-year track and an accelerated bridge track for applicants who are already LPNs. In addition, graduates can pursue a BSN degree at a University System of Georgia College through an articulation program that facilitates credit transfer and recognizes the class and clinical experience graduates bring.³⁶

Similarly, the community college system in Indiana is working to improve articulation across programs, from LPN to RN, associate to baccalaureate, and baccalaureate to master's degree.³⁷

In Texas, the State coordinating board approved a standard set of courses—the Field of Study Curriculum—that helps students transfer to other schools without having to repeat courses. These changes alone save as much as two years of repetitive coursework.³⁸

Utah schools have enacted numerous administrative changes to expand the number of nurses who go through the system, including:

- Develop RN refresher and reactivation courses, delay retirements, increase retention, and encourage industry investment in educating more nurses;
- Accelerate programs, remove barriers to obtaining degrees, and import more nurses;
- Add summer semester and examine shortening the curriculum (LFA Report);
- Offer nurse re-entry program as a joint effort of the UHA and Weber State to help former nurses whose licenses have lapsed regain licensure.

Similarly, many schools in Georgia have found ways to enroll more students through fast-track, slow-track, year-round admissions, satellite locations, nontraditional schedules and distance learning.³⁹

WORKPLACE IMPROVEMENTS

Several States have taken steps to improve the nurse work environment. Many argue that these measures are critical because they help retain nurses who are currently in the workforce, bring back those who have left, and, further, help with recruiting efforts by making nursing an attractive field to pursue. California lawmakers, for example, passed legislation to improve work conditions for nurses who already are in the workforce and thus aid in retention. Separate laws enacted restrictions on mandatory overtime and a 1999 law established minimum nurse staffing ratios. The Texas Legislature also enacted whistleblower protections and workplace safety measures.

Hospitals and other health care employers also are taking an active role in improving the overall working environment. As part of its recruitment and retention campaign, the Candler Hospital in Georgia, for example, sought credentialing as a magnet hospital in 2002. (Hospitals achieve magnet status after they meet several quantitative and qualitative standards developed by the American Nurses Credentialing Center. They are associated with increased job satisfaction and improved health outcomes.) Among the recruitment and retention efforts implemented by the hospital: flexible staffing, financial incentives for nurses that move from part-time to full-time, referral bonuses and tuition reimbursement.

CONCLUSION

Each of the five States faces nursing shortages brought on by a rapidly aging population and a declining nursing workforce. They are addressing these problems through a variety of legislative and other approaches. Table 7 summarizes the challenges and opportunities facing each State, which leads to the next chapter on policy options and recommendations. Solutions that work in one State may not be the top priority of another, so an understanding of the critical challenges facing each State—as well as their strong suit—helps to determine which policy courses they should pursue.

Table 7. Five States' Challenges and Opportunities

STATE	CHALLENGES	OPPORTUNITIES AND STRENGTHS
California	<ul style="list-style-type: none"> • Lack of institutional capacity: <ul style="list-style-type: none"> ○ Nursing programs turning away up to 40 percent of qualified applicants. ○ Nurses educated elsewhere: importing from other States and countries. ○ Waiting lists at all levels; no entry-level baccalaureate program in University of California system. • Severe State budget constraints limit State funding potential. • Concerns about workplace environment, including insufficient staffing, mandatory overtime, lack of appreciation and wages and benefits.⁴⁰ 	<ul style="list-style-type: none"> • Strong private and foundation role. • Addressing work conditions through private sector and legislative initiatives. • Targeting WIA funds to nursing education. • Modest enrollment gains. • Strong data collection infrastructure. • Strong stakeholder relationships; they assembled to gather data and conduct strategic planning.
Georgia	<ul style="list-style-type: none"> • Lack of institutional capacity: <ul style="list-style-type: none"> ○ Georgia not educating enough of their own nurses; instead, the State relies on nurses who were educated in other States. • Insufficient pipeline despite enrollment gains; graduations still lagging. • Demand for health professionals—at 37 percent—outpaces National rate of 30 percent.⁴¹ • Vacancy rates for hospitals and long-term care providers. Private providers report vacancy rates ranging from 10 percent to 15 percent for RNs.⁴² • Financially struggling hospitals: 60 percent of all Georgia hospitals lost money in 2003 providing patient care.⁴³ 	<ul style="list-style-type: none"> • Strong and established models of public-private partnership, with significant investments by employers, nursing schools and the State. • Significant foundation and private support and commitment. • Strategies in place—Statewide P-16 Council—to create a coordinated preschool through college educational system. • Efforts and initiatives in place to recruit and support at-risk students. • Enrollment rising (50 percent gain between 2000 and 2002 for gain of 4,000 new RNs). • Modest increases in master's and doctoral degree enrollment. • Number of licensed nurses increasing. • Public-private investments producing more nurses—ICAPP program expected to produce up to 1,300 new nurses over two years. • Addressing faculty shortage directly. • Using Federal funds for nursing education.

<p>Indiana</p>	<ul style="list-style-type: none"> • Lack of institutional capacity: <ul style="list-style-type: none"> ○ Turning away increasing number of qualified applicants because of faculty shortage; Indiana University School of Nursing turned away 25 percent of applicants. • Insufficient workforce: <ul style="list-style-type: none"> ○ Lowest rate of nurse practitioners and certified nurse-midwives in the nation; second to lowest rate of nurse anesthetists in the nation. ○ Number of new LPNs and RNs dropped between 1994 and 2001, with new LPNs dropping by nearly 30 percent. • Expanding available labor pool is necessary: <ul style="list-style-type: none"> ○ Shrinking pool of young workers: while 18- to 24-year olds decline by 3 percent between 2000 and 2025, the over-65 population will increase by 62 percent. ○ Survey: lack of interest among high-achieving high school graduates.⁴⁴ 	<ul style="list-style-type: none"> • Increased interest in nursing education: applications for entry-level baccalaureate programs up 64 percent between 2000 and 2002. • Enrollment gains at all levels; reversing negative enrollment trends; entry-level RN programs up by 11 percent; 2003 enrollment in master's and doctoral programs up by 19 percent and 4 percent, respectively, from 2002 to 2003. • Number of RNs practicing in Indiana up by 18 percent between 1997 and 2001. • Increase in doctoral prepared nurses. • Increase in State tax appropriations for higher education between 2002 and 2004. • Demand for nurses growing more slowly than four other States. • RNs per capita best of five States, but still below National average. • Improving articulation among nursing programs.
<p>Texas</p>	<ul style="list-style-type: none"> • Lack of institutional capacity; turning away one-fifth of applicants. • Faculty shortage impeding expansion efforts: "the lack of budgeted faculty positions is the greatest impediment to increasing enrollments."⁴⁵ <ul style="list-style-type: none"> ○ Declining enrollment in master's and doctoral programs, down 23 percent between 1994 and 2003. ○ Faculty salaries not competitive, especially in the community colleges. ○ Students in graduate nursing programs pursuing clinical practice in greater numbers than 	<ul style="list-style-type: none"> • Formula funding for colleges, universities and health-related institutions increased between 2002 and 2005. • Used existing funds to support nursing education; targeting recruitment and retention with dramatic growth and tobacco settlement funds. • Established nursing workforce center • Increasing racial and ethnic diversity among RN graduates.⁴⁶ • Developed set of common courses to ease transfers and eliminate repeated courses.

	teaching.	
Utah	<ul style="list-style-type: none"> • Lack of institutional capacity: <ul style="list-style-type: none"> ○ Schools accepting only one-third of qualified applicants (Utah College of Nursing admitted just 100 of 266 applicants). ○ One-third of nursing educators planning to retire in next five years. ○ Salary inequities thwart recruitment and retention efforts. • Inadequate nursing supply: <ul style="list-style-type: none"> ○ Ranks third worst in RN per capita ratio behind Nevada and California. ○ RN vacancy rate in nursing homes highest in country at 24 percent. • Hospitals spending significant amounts on traveling nurses and overtime and limiting patient care as a result of nursing shortage. • Over-65 population growing by 116 percent, while rest of population growing by 24 percent between 2000 and 2020. 	<ul style="list-style-type: none"> • Associate degrees on the rise. • Increased interest in nursing: 53 percent increase in applications to RN programs between 2000 and 2002. • Increased admissions: 2003 admissions higher than any other year and 70 percent greater than 1995 admissions. • Increased enrollment in master’s and doctoral programs—up by 11 percent and 62 percent, respectively, between 2002 and 2003. • Large, qualified pool of applicants. • Healthy State: leads nation in low prevalence of smoking, low risk for heart disease and low rate of cancer cases.

Despite the fact that each of the five States has different shortage characteristics, each State faces the same conundrum: they need to expand their nursing supply, but their current nursing education resources are not sufficient to permit the needed expansion. Standing in the way of this badly needed expansion is a faculty shortage that limits the number of students who can enter the system, as well as other factors, such as limited State and private funds to add new nursing programs or expand existing ones. States have been adapting to fill some of the gaps—by importing nurses from other States and countries as Georgia and California do, for example—but most recognize that these measures are not long-term solutions.

Chapter 3 outlines policy options and solutions that have worked in these five States and others to expand the nursing pipeline and, ultimately, to achieve the goal of increasing the nursing supply to meet future demand. What works in one State may not be the best approach in another. In California, for example, where schools of nursing across the State are turning away qualified applicants, expanding program capacity may better meet short- and long-term needs than recruiting more potential students. Moreover, each State faces specific shortfalls: while California policymakers may identify a need to increase the numbers of baccalaureate trained nurses, policymakers in Texas, for example, may focus resources on increasing enrollment in master’s and doctoral-level programs leading to a teaching career.

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3. POLICY OPTIONS AND STRATEGIES

“Real solutions for the long-term will be expensive, painstaking and slow. Targeted investment, constant evaluation, and willingness to tackle difficult issues are the necessary components of sustained success.”

—Georgia’s Workforce Policy Advisory Committee
“What’s Ailing Georgia’s Health Care Workforce?” report, 2002

Although State experience demonstrates that no single solution exists to the problems facing the States, there are promising approaches in these five States and others that are reversing the downward enrollment and graduation trends. This chapter describes some promising strategies aimed at expanding the nursing supply through expanded educational capacity, faculty and student recruitment and retention efforts, and other initiatives.

STATE STRATEGIES SHARE COMMON THEMES

Despite the large number of policy options available to States, some common themes are shared by all States that are working toward a long-term solution to the nursing shortage problem. Among them: the importance of partnerships, targeting public funds into successful programs, and leveraging public funds with investments from other sources.

Partnerships. A common thread in the strategies outlined here is partnerships and collaboration. Health care employers, already feeling the pinch of the nursing shortage, are providing significant financial and human resources to help schools enroll a growing number of students. Schools, in turn, are making changes to improve access to nursing programs and to maximize current resources to reach as many students as possible. States are facilitating—and, in many cases, requiring—these partnerships, especially when State funds are being used. In times of tight State budgets, some States are finding that targeting existing funds into these collaborations may be among their most effective contributions.

A key theme that emerged from the 2003 National Conference of State Legislatures nurse shortage summit in San Diego was the importance of meaningful collaboration between State legislatures, academia, the health care industry and the nursing profession. Put simply, the problem is too complex for one group to solve. State legislatures, although they play a key role in funding and regulating nursing education, need strong partnerships with industry and academic programs to implement changes. Collaborations and partnerships are a means to an end—not an end in themselves—and the synergy created when groups pool their expertise and resources is making a difference.

Targeting Public Funds into Programs that Work. The second theme is the importance of targeting existing funds into successful programs and relationships. With limited new dollars for nursing education, States and their partners are demanding tangible outcomes: specifically, more nurses and more instructors.

Leveraging Public and Private Funds. Finally, leveraging State funds with Federal, private and university funds and resources is important to the success of the strategies discussed below. Ensuring that public and private funds are used for maximum benefit is a critical element in solving this complex problem.

NUMEROUS STAKEHOLDERS, VARIED ROLES AND RESPONSIBILITIES

The nursing shortage affects many organizations and groups; solving the problem also requires that various stakeholders be involved. A 2002 Robert Wood Johnson Foundation report summarized some of the key stakeholders and their role in the overall effort to deter a nursing crisis. Table 8 also underscores how important it is that organizations invest in those areas where they can be most effective; it summarizes various stakeholders and their strategies and roles.

Table 8. Nursing Shortage Stakeholders and Strategies

Stakeholder	Strategies and Roles
Legislatures	<ul style="list-style-type: none"> ● Increasing the nursing supply ● Protecting the nursing workforce, improving safety ● Obtaining data for planning
Government Entities	<ul style="list-style-type: none"> ● Administering, monitoring and regulating as required ● Collecting and tracking information for planning ● Supporting workforce research ● Analyzing and sharing information with key stakeholders
National Professional Nursing Organizations	<ul style="list-style-type: none"> ● Establishing common goals and objectives ● Educating lawmakers, shaping legislation, influencing policy ● Improving the professional image of nursing
Health Care Industry and Professional Organizations	<ul style="list-style-type: none"> ● Expanding the supply of nurses ● Educating lawmakers, supporting legislation ● Improving work conditions and collaboration among disciplines
Labor Organizations	<ul style="list-style-type: none"> ● Strengthening collaborative labor efforts ● Educating lawmakers and supporting legislation ● Influencing compensation and work environment ● Moving toward more partnership agreements with employers
Nursing Education Organizations	<ul style="list-style-type: none"> ● Increasing capacity, recruiting minorities ● Improving educational and training opportunities for nurses ● Expanding the range of teaching technologies ● Enhancing collaboration between education and practice ● Providing qualified faculty
Health Care Delivery Organizations	<ul style="list-style-type: none"> ● Recruitment and retention ● Partnering with schools, communities and regions ● Improving the work environment ● Developing nursing leadership

Source: Bobbi Kimball and Edward O'Neill, *Health Care's Human Crisis: The American Nursing Shortage*, (Princeton, New Jersey: Robert Wood Johnson Foundation, 2002).

Because such a variety of players, roles and responsibilities exists, this report does not provide in-depth information about each of the above solution areas. Rather, this chapter focuses on strategies that States have implemented to directly and indirectly affect the nursing pipeline, such as funding schools of nursing and supporting partnerships between programs and industry.

POLICY GOALS

Although there is no quick or simple remedy, States and their partners are finding ways to approach the problems. State activities designed to improve the supply of nurses include the following major goals:

- **Implement proven recruitment efforts to expand the available labor pool,** including reaching out to nontraditional nursing students such as males and individuals from diverse racial and ethnic backgrounds;
- **Expand the State’s institutional capacity to enroll and graduate an increasing number of individuals.** Expanding the nursing pipeline is a critical challenge in each of the five States, and the strategies range from faculty recruitment and retention to increased—or targeted—funding for nursing education programs to expand the number of slots available to nursing students;
- **Develop a sustainable nursing workforce.** Understanding the specific and dynamic issues relating to nursing supply and demand is critical for policymakers and others as they engage in workforce planning and resource allocation. In addition to establishing processes for monitoring the workforce, States also are fostering public-private partnerships to promote a long-term solution; and
- **Improve work conditions to aid in retention efforts.** States across the country passed numerous laws in an attempt to improve the nursing workplace, including whistleblower protections, minimum staffing requirements and mandatory overtime prohibitions. Although these efforts do not directly affect the nursing pipeline, some argue that improving the job is a critical step in ensuring the success of recruitment and capacity-building efforts.

States are involved in other ways, such as examining the regulatory requirements in place and their effect on the nursing workforce. Given the States’ regulatory responsibilities, some are undertaking an assessment of certain laws and regulations (e.g., scope of practice and nurse practice acts) and are considering how these relate to the nursing pipeline, patient care and job satisfaction.

In addition, States are involved in promoting partnerships among educators, employers, State governments and regulatory bodies. These partnerships are used in State after State for various purposes—to pool resources to expand the nursing pipeline, gather data and monitor the workforce, and seek long-term solutions to the nurse shortage problem. In other words, promoting partnerships is a means to one of the ends listed above, not typically a free-standing goal. The existence of partnerships will be seen in each of the strategies that follow.

I. EXPAND THE AVAILABLE LABOR POOL

States and their partners in industry and academia are implementing various measures to expand the potential labor pool of future nurses. These activities include informing youth about nursing career options and promoting interest and understanding of the profession among a broad labor pool. Some States also are targeting Federal and State resources to improve diversity by reaching out to minorities, disadvantaged students, immigrants, males, and dislocated and older workers. Some specific concerns relating to expanding the labor pool include the following.

- **Expand the overall supply of potential nursing students.** Under the broad goal of expanding the quantity of prospective nurses, States are engaging in recruitment efforts with middle school and high school students, displaced workers, retired workers and others who may seek a second career in nursing.
- **Increase diversity in the profession so it more closely reflects the State’s demographics.** Although increasing the quantity of nurses is critical, many States also are attempting to influence the mix of the labor pool by reaching out to individuals from diverse racial and ethnic backgrounds.
- **Train individuals from varied geographic areas, particularly underserved locations in rural and urban areas of the State.** Students—especially non-traditional students—tend to work where they live. Therefore, training students who live in underserved areas promotes the State’s goals of an effective workforce distribution.

In short, expanding the nursing workforce involves a number of approaches—some aimed at simply increasing the quantity, and others that seek to influence certain characteristics within the labor pool, such as geographic distribution and gender, racial and ethnic diversity of the workforce.

Objective: Expand access to nursing education by providing financial resources and support services for traditional and nontraditional students.

The cost of receiving a nursing education is a barrier for many would-be nursing students. This is especially true among non-traditional students, who tend to be older and more likely to have family and work responsibilities that make it difficult to pay for the high cost of a nursing education. The average baccalaureate graduate has an educational debt of \$14,600 from a public school or \$16,100 from a private school.¹ To alleviate this dilemma, the Federal government, States and the private and academic sectors are offering financial incentives—such as loan repayment programs, scholarships, tax credits, and even health insurance—to help ease the financial burden for potential nursing students. Many of these incentives come with certain requirements to ensure that, to receive full benefits, recipients practice for a certain number of years or practice in certain shortage areas. Specific examples follow.

Strategy I-A: Promote nursing careers to traditional and non-traditional students.

In addition to promoting health careers to young people in elementary, middle and high schools, States and others in academic and private settings are launching outreach efforts aimed at youth in middle and high school and at nontraditional students, such as displaced workers, retired workers

and others who may seek a second career in nursing. In 2002, half of all States reported having initiatives in place to market health careers.² Area Health Education Centers (AHECs) administered marketing programs in approximately 40 percent of States with marketing initiatives. The goal: to promote the nursing profession and educate prospective students about the various career paths available, including clinical practice in hospitals, schools and long-term care facilities, and about teaching, policy and research opportunities.

According to a report by the DOL Employment and Training Administration, among the workforce strategies with the “clearest impact” were youth programs that are developed and administered by partnerships of schools, employers, and nursing and public workforce entities.³

- Florida’s Nursing Shortage Solution Act set aside funds for grants to promote the nursing profession in middle and high schools.
- In Massachusetts, the Nursing Career Ladder Initiative, beginning in 2002, is charged with examining the nursing development infrastructure and bringing 1,000 individuals into the nursing pipeline.
- Currently, men represent only about 5 percent of the workforce. To increase the ranks of male nurses, the Oregon Center for Nursing launched a poster campaign, “Are You Man Enough to be a Nurse?” Other States are considering actions that would attract students of color, including certain financial and educational incentives such as transportation, child care assistance and tutoring.
- A Tennessee Independent Colleges and Universities Association (TICUA) commission recommended that the State appropriate funding to schools of nursing for scholarships and enable nursing students to enroll in TennCare for medical insurance.

Strategy I-B: Expand access to nursing education by providing financial assistance in the form of scholarships, stipends or loan forgiveness to potential students.

States are redirecting existing funds—and, in some cases, finding new money—to invest in nursing education. According to the American Nurses Association (ANA), more than 140 bills addressing nursing education were introduced in 2004, many of which would fund loan forgiveness and scholarships for nurses who pursue teaching or practice in underserved areas.

In 2002, 38 States reported scholarship and loan repayment programs for health professionals; of those, 24 had programs specifically targeted to RNs, according to the Center for Health Workforce Studies at SUNY’s University of Albany. Some examples are described below.

- The Florida Nursing Shortage Solution Act encourages nurses to obtain advanced training and provides \$1 million in matching grants to hospitals that offer funds for nurse retention and recruitment efforts.
- Georgia almost tripled the amount of funds it makes available for service cancelable loans for certain health professions—from \$1.1 million in 2000 to more than \$3.1 million in 2003. The number of students who participated in the program more than doubled from 2000 to 2002; 1,200 students participated in 2002, and another 250 were on the waiting list. This program, run by the Georgia Student Finance Commission, not only helped to increase enrollment

(enrollment was up in 2001 for the first time in eight years) but also encourages nurses to practice in Georgia to repay their loan.⁴

- Also in Georgia, the amount allocated to the Nursing Education Loan Repayment Program increased from \$2.3 million in 1999 to \$15 million in 2003.⁵
- Illinois legislation authorized scholarships for nursing students who pursue graduate degrees and agree to practice in underserved areas.
- In New York, the Regents Professional Opportunity Scholarship Program awards up to \$5,000 per year for four years to racially diverse and/or economically disadvantaged State residents who are pursuing an RN degree. Recipients must work for one year in the State for each annual reward received.⁶
- Legislation in Pennsylvania created a one-time \$3 million appropriation to establish a nursing loan forgiveness program administered by the Pennsylvania Higher Education Assistance Agency.
- A 1993 State law in Texas created a "health careers fund" to encourage high school students from underserved areas to consider careers in medicine, osteopathy, nursing and allied health. Students who participate receive education loans that are forgiven when they return to practice in their home communities on completion of training.

Examples of Federal and Other Funding

Each of the five study States received Federal funds for nursing workforce development. The Nurse Reinvestment Act of 2002 (which amended the Nursing Education and Practice Improvement Act of 1998) distributed more than \$140 million nationally in 2004 to help States recruit and retain faculty and students, promote diversity, and train more nurses in specialty areas.

According to HRSA's Division of Nursing, preference is given to projects that benefit rural or underserved individuals and help meet public health nursing needs in State or local health departments. The Nursing Education Loan Repayment Program helps RNs repay educational loans in exchange for work in critical shortage facilities. The Federal funds ranged from \$45,831 in Utah to \$1.4 million in California. Some examples of HRSA-funded projects include the following.

- With the help of two Federal HRSA grants, Clayton College and the State University in Georgia now have programs to combat rising failure rates among BSN students on NCLEX exams, language barriers, and declining preparation levels in math and science. The university provides cultural competency training to faculty, offers mentoring experts to students, and arranges a 10-week summer opportunities program for high school students.⁷ In addition, the school opened admissions to full-time students in both the fall and the spring and allowed part-time students to enroll in the summer, which increased the diversity of applicants.
- Federal Workforce Diversity Grants provide scholarships or stipends to enable students to complete nursing education programs. In 2004, workforce diversity grants totaled \$16.4 million, and 20 grants were awarded.

- The Nursing Education Loan Repayment Program provides loan repayment to nurses with educational debt and ultimately forgives those loans in return for a commitment to work in facilities with a critical shortage of nurses.

Strategy I-C: Change the Way Nursing Education Is Delivered to Accommodate a More Diverse Population.

Schools of nursing are making many program changes to ensure they are responsive to student’s needs and situations. One obstacle to entering the nursing profession—particularly among individuals with family and work responsibilities—is the lack of convenient opportunities to attain a nursing education, particularly in rural and remote areas.

Although schools of nursing are taking the lead to implement the projects, State and Federal resources are, in some cases, helping to support these innovations. One concrete example is offering a nursing degree in a format that allows students to remain in their community and continue to meet work and family obligations. Distance education, as well as more flexible tracks—including fast tracks and slow tracks—allow individuals in various situations to obtain a nursing degree. Some specific examples follow.

- To address a severe nursing shortage in the central San Joaquin Valley, the Bakersfield College Nursing Program is collaborating with Porterville College and West Hills College to provide nurse training where it previously was not available—in the rural communities in southwestern San Joaquin Valley. The Bakersfield Distance Education Program allows students to remain in their home towns to complete most of the course work. The \$883,800 initiative is funded through grants, collaborative partnerships with local health care agencies, and general funds from the colleges. Student enrollment is limited to 10 students per year at each remote site for a total of 30 students in the program.⁸ Among program benefits are the new availability of the RN degree and the fact that many participants will choose to practice in their home community.⁹
- In Georgia, as described in Chapter Two, the Georgia Perimeter College’s Hybrid Fellowship Program combines face-to-face classroom instruction with on-line instruction, reducing classroom space requirements by 50 percent.¹⁰
- Chapter two described several efforts that are under way in the five States to streamline course requirements and facilitate transfers among schools and between educational levels. In Texas, for example, a standard set of courses, known as the Field of Study Curriculum, helps students transfer without having to duplicate coursework.¹¹

II. EXPAND INSTITUTIONAL CAPACITY

Each of the five States—along with others nationwide—struggle with insufficient institutional capacity. As a result, they turn away significant numbers of qualified applicants who may not enroll elsewhere. States may have increased interest in nursing, but if the pipeline is too small to accommodate the demand, those efforts may be wasted. Expanding the size of the pipeline is a daunting task, given the numerous obstacles—including a worsening faculty shortage and limited financial resources—that make it a challenge to open new programs and expand existing ones.

This section describes strategies States are undertaking to expand institutional capacity. These strategies are divided into two main categories: those aimed at expanding the faculty workforce and those aimed at building the capacity of nursing education institutions. The strategies include ways States can change funding practices to more directly benefit nursing education programs. In addition to State aid, the Federal government is a significant funder of pipeline initiatives, providing grants and scholarships for faculty and student recruitment and retention.

The worsening faculty shortage prevents programs from expanding their class sizes. Nursing programs have high instructor-to-student ratios and, therefore, a lack of instructors limits the number of students. Moreover, according to the American AACN, nursing programs cited lack of faculty as a top reason for turning away qualified applicants. Addressing this problem is likely the most critical need facing States. Increasing faculty is a long process, given the length of time needed to complete a degree, and will require long-term investment by States, the health care industry and educators.

Numerous barriers exist to solving the faculty shortage. Table 9 identifies some challenges and opportunities related to the faculty shortage.

Table 9. Addressing the Faculty Shortage: Challenges and Opportunities

Challenges	Opportunities
<ul style="list-style-type: none"> • Faculty aging and large number soon to retire 	<ul style="list-style-type: none"> • Increasing interest in nursing profession in general; increased enrollments offer more people in the pipeline the opportunity to pursue a faculty role
<ul style="list-style-type: none"> • Current students not pursuing educator tracks in sufficient numbers 	<ul style="list-style-type: none"> • Meaningful partnerships between employers and educators presenting some relief as hospitals share their staff with nursing programs to expand faculty ranks
<ul style="list-style-type: none"> • Deterrents to faculty careers include salary, potential for financial and career mobility, financial and time commitment to complete master’s and doctoral degrees, increasing work loads, and increasingly attractive clinical opportunities. 	<ul style="list-style-type: none"> • Technology offers ways to maximize teaching resources and extend existing programs via distance learning and online classrooms
<ul style="list-style-type: none"> • Requirements that instructors have advanced 	<ul style="list-style-type: none"> • Federal and State assistance available to

degrees and other regulatory requirements, such as low teacher-student ratios	develop faculty workforce
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Although the challenges are daunting, States across the country are channeling the above opportunities into strategies to expand the faculty workforce. Some strategies used by States and the private and academic stakeholders are summarized below.

Objective: Expand the faculty workforce through recruitment and retention efforts.

Strategy II-A: Fund scholarship and loan forgiveness programs for students who agree to pursue teaching.

To bolster the faculty supply, some States are targeting funds to recruit nursing students who intend to pursue teaching. Some specific examples follow.

- Legislation was introduced in 2005 in Arizona that requested \$20 million from the State over five years to expand nursing faculty. This allocation would combine with a \$20 million Federal investment for a five-year demonstration program to pay for new and existing nurse faculty at the State’s universities and community colleges.
- To increase faculty, Connecticut legislation requires the Department of Education to provide financial aid to certain community colleges that partner with hospitals that also have received private funding.
- As described in Chapter 2, with funding from the State Department of Labor and the Woodruff Foundation, Georgia provides funding for students to enroll in graduate level programs at public or private universities in Georgia. For every year they teach in the State, they are eligible to cancel up to \$2,500 in loans. The result: over 5 years, this program has produced an additional 25 faculty who are geographically dispersed throughout the State.

In addition to State assistance through loan forgiveness and scholarship programs, employers and nursing programs are implementing numerous strategies to alleviate the faculty shortage. Table 10 illustrates some strategies that employers and educators are implementing to alleviate faculty shortages.

Table 10. Strategies Used By Employers and Academic Institutions

Lead Stakeholder	Strategies
Employers	<ul style="list-style-type: none"> • Help nursing programs increase faculty by training and loaning qualified nurses to teach in partner schools and supervise clinical rotations. The California Community College system has eight Regional Health Occupation Centers that promote partnerships between community colleges and employers. One center brought together 20 employers and nine community colleges, resulting in training for 200 nursing students.
Employers and Nursing Programs	<ul style="list-style-type: none"> • Partner to produce more nurse educators through fast-track nurse educator programs that help associate and BSN degree holders earn a master’s or doctoral degree. In exchange for employers’ providing flexible schedules to their nurses who are pursuing advanced degrees, nurses commit to work part-time for the hospital after they earn their advanced degree and also work part-time as a nurse educator. • Offer flexible working arrangements, such as allowing staff to share their time between universities and clinical work. • According to the ANA, employers have made significant contributions to expand the pipeline:¹² <ul style="list-style-type: none"> ○ In San Diego, six hospital systems committed \$1.3 million to support “Nurses Now,” a program designed to add faculty and student slots at San Diego University. ○ Hospital CEO in Laredo, Texas, worked with Texas A&M to develop a four-year baccalaureate degree program and provided \$425,000 in scholarships to local students over five years. ○ The Dallas Fort-Worth Hospital Council raised \$600,000 to increase student enrollment at area schools.
Nursing Programs	<ul style="list-style-type: none"> • Target second-career entrants as a potential source of faculty. • Offer fast-track and slow-track educational programs and change requirement that nurses have years of clinical experience before they move on to graduate programs. For example, the Nell Hodgson Woodruff School of Nursing at Emory University offers a new certificate program to prepare master’s prepared clinicians to become skilled educators. The program includes 12 days of classes on the Emory campus, a month and a half of distance learning, and a four-month mentored teaching experience at an approved educational institution.

In addition to funding faculty recruitment and retention efforts, States also play a role in funding program expansion at schools of nursing. Some approaches States and others are adopting are summarized below.

Objective: Maximize the existing infrastructure to see how it can be stretched to educate greater numbers of students. In light of budget constraints, doing more with less is often a requirement.

Strategy II-B: Examine approaches that maximize the State's collective educational resources.

Many States are examining how they can more effectively and efficiently use all the State's educational resources, including funding private schools of nursing, to enroll additional students and absorb some of the excess capacity.

- Legislation was introduced in Arizona in 2005 (HB 2385) that would allow community colleges to offer four-year baccalaureate degrees so long as they meet certain provisions.
- The California State Policy Committee for Nursing recommended that the State provide scholarship support for RN prelicensure nursing students who are enrolled in both private and public programs.¹³
- In Georgia, the Helping Outstanding Pupils Educationally (HOPE) Scholarship Program awards scholarships to students who are enrolled in private colleges or universities in the State.
- The Contract Education Program in Tennessee allows the State Higher Education Commission to contract with private institutions to address education needs that may be met more efficiently through the contract program. Among the grants provided under the program are two \$10,000 nursing slots at Vanderbilt University. The program requires recipients to practice in-State for every year they receive the grant.

Objective: Expand State nursing education programs as needed to meet the State's current and expected demand.

Nursing education funding methods include general revenue support for higher education institutions and formula funding arrangements that allocate funds based on factors such as student count, credit hours and degree type. Other ways States fund nursing education include appropriating funds to nursing programs, targeting Federal and State funds to nursing education, and offering financial incentives for students to pursue nursing education (for a clinical or academic career).

State funding can be used to expand existing programs or create new ones. According to a report by Georgia’s Healthcare Workforce Policy Advisory Committee, “It is generally less expensive to increase enrollment capacity in existing programs than it is to make equivalent increases by beginning new programs.” All States may not reach the same conclusion or may have reasons to build new programs, particularly those States where entry-level RN programs are not readily available throughout the State. Nonetheless, this provides examples of how States are evaluating the best use of their limited resources.

“State appropriations for nursing education have been affected by State budget woes. Nursing education officials are often frustrated to learn that even when their States have established special appropriations for nursing, their programs have not always received the full amount generated by or allotted to their programs. Current State appropriations may provide lump-sum amounts to systems or institutions sponsoring nursing programs with the assumption that some of these funds will be allocated within the institutions to support nursing education.

Most State legislatures have the option to establish dedicated line items for nursing within their appropriations for higher education. These line items could be time limited and require nursing programs to demonstrate specified levels of performance to continue having these funds protected from encroachment of other institutional programs. Future dedicated appropriations could also depend upon successful performance. Although this approach would reduce an institution’s flexibility in allocating its resources, it may ensure the continued viability and potential growth of publicly funded nursing education. Nursing education would not be relying solely on special program funds created by their legislatures, but would enjoy for a limited time a level of base funding and be assured that new monies generated by their enrollments would be returned to their programs to enhance quality and expand class size.”

—Source: National Conference of State Legislatures, *The Role of States in Financing Nursing Education* (Denver: NCSL, 2003).

Strategy II-C: Examine process for appropriating State funds to nursing education.

As described in Chapter 2, States use various methods to fund higher education. Some States provide a block grant to the institutions of higher education and leave funding allocation to local institutions. Others determine State funding based upon a formula that could include factors to help offset the higher cost of nursing programs. In addition to these methods, some States are considering instituting a process to reward institutions that fulfill certain needs or public policy goals. Some specific examples follow.

- The California Strategic Planning Committee for Nursing recommended that the State “... directly support a State-determined RN pre-licensure class size and provide funds directly to programs rather than leaving decisions to fund nursing education to individual campuses.”¹⁴
- In 2002, the New Mexico Commission on Higher Education named a Blue Ribbon Task Force to evaluate the current funding method and recommend changes to reward successful institutions that are meeting the State’s economic needs. The task force developed a Base-Plus-Incentives Funding Model comprised of several base or formula factors, including current appropriations, compensation and inflation. In addition to the

base funding, the formula would provide incentives to address the nursing and teacher shortage and would allocate funds to institutions through a competitive proposal process.

- Virginia developed a similar funding formula that offers incentive funding for performance on outcome measures such as graduation and retention rates, exam passing rates, post-graduate placement and faculty productivity.

Strategy II-D: Invest additional State funding in programs that meet the State’s policy goals.

Fund programs to help schools of nursing increase faculty, develop accelerated programs, provide scholarships to potential faculty, and develop competitive salaries.

- In California, where currently about 70 percent of nurses have an associate degree in nursing, the CSPCN recommended that the State take measures to change the mix of RN prelicensure students so that 40 percent of enrollments are in BSN and master’s-level entry programs and 60 percent are in associate degree in nursing programs.¹⁵
- In North Carolina, an AHEC-administered grant program provides funds to schools of nursing to develop new sites for clinical experiences, with a focus on shortage areas such as long-term care and rural and underserved locations in the State. As a result of these funds, more than 160 new clinical sites have been developed.¹⁶
- As described in Chapter 2, Texas lawmakers in 2001 identified an existing \$11.3 million in FY 2002 funds earmarked as Dramatic Growth Funds for normal enrollment increases. First claim on those funds was given to RN training programs that demonstrated from FY 2000 to FY 2001 increased contact hours above 5 percent for community colleges, increased weighted semester credit hours for universities above 3 percent, and increased student full-time equivalents for health science centers. An additional \$11.3 million enrollment growth fund for FY 2003 was subject to the same first-claim priority for nursing programs that could demonstrate continued growth at twice the growth rates required the prior year, but calculated from FY 2000 to FY 2002. Consequently, up to \$22.6 million could be spent on enrollment growth for professional nursing programs during the biennium, of which \$1.5 million was specifically dedicated for this purpose.

Strategy II-E: Redirect existing State and Federal funds to nursing education programs.

In times of tight State budgets, States are considering how they can target existing funds—from Federal and State sources—into nursing education.

Redirect State Funds to Nursing Education. Some States are directing portions of existing funding streams—a State lottery or State tobacco settlement proceeds—into nursing education initiatives. Some examples are described below.

- The Georgia lottery funds the Helping Outstanding Pupils Educationally (HOPE) Scholarship Program, which was established in 1993. Eligible Georgia residents who enroll in a State college, university or technical college may receive financial assistance for tuition and certain mandatory fees plus a book allowance; those enrolled in an eligible private college or university in the State may receive up to \$3,000 annually.

- Nevada used some of its tobacco settlement funds to establish the Trust Fund for Public Health. In 2001, the Legislature appropriated funds from the trust fund to support a loan program for nursing students. The lesser of either 25 percent of the trust fund proceeds or \$250,000 is appropriated annually for this loan program. In July 2001, the appropriation was \$96,000.
- In Virginia, \$1 million in tobacco settlement funds were recently appropriated by the legislature for undergraduate college education in the south and southwest parts of the State. Although some of these funds were likely to support nursing students, none of the funds were earmarked specifically for nursing education.

Redirect Federal Funds to Nursing Education. According to a 2002 survey by The Center for Health Workforce Studies at the University of Albany, 7 States reported that they have health workforce training and education initiatives funded by Federal programs such as H-1B Visa Grants, Workforce Investment Act funding, Medicaid funding to support hospital-based clinical nursing education, and Temporary Assistance to Needy Families funding.¹⁷

- In Arizona, the State uses WIA funds, tuition, State resources and private sector contributions to expand graduations by nearly 200 over two years and implement an accelerated BSN degree programs at 3 State universities.
- In New York, the State departments of Health and Labor administer the TANF Health Worker Training Initiative, which provided up to \$20 million for job training, recruitment and support services for TANF-eligible recipients.
- Also in New York, the departments of Health and Labor administered the Health Workforce Retraining Initiative, which made available up to \$90 million to train or retrain health care workers in shortage fields such as nursing.¹⁸

Another source of Federal funding is the President's High Growth Job Training Initiative. This DOL initiative has invested Federal funds into collaborative projects in 12 shortage fields, including health care. The goal is to promote collaboration among employers, employees, educators, community and technical colleges and the public workforce system. The initiative has invested more than \$24 million in health care projects to expand the pipeline, identify alternative labor pools such as immigrants and older workers, and enhance the capacity of educational institutions.¹⁹ For example, the Department of Labor's Employment and Training Administration provided a grant of \$1.5 million to the Maryland Governor's Workforce Investment Board to provide 40 faculty scholarships to nurses who pursue teaching.

Strategy II-F. Encourage or direct institutions of higher education and State schools of nursing to achieve certain outcomes.

Given States' often significant investment in higher education, many direct institutions to ensure that adequate resources reach nursing; some are prescribing that institutions divert funds to high-priority areas (such as entry-level master's degree programs in California). Some specific examples follow.

- In 2002, Arizona legislators passed a law that directed the State Board of Regents and community colleges to develop a plan to double the number of graduates from the State's nursing schools by 2007.

- In California, as described in Chapter 2, lawmakers passed legislation in 1999 that required the chancellors and presidents of the four higher education systems in California to develop a joint strategic plan to expand enrollment in basic RN education programs. The California Strategic Planning Committee for Nursing submitted its report in 2000.
- Also in California, the Legislature directed the chancellor of California State University to provide supplemental funds to universities to establish an entry-level master’s program in nursing. The governor signed into law the Entry Level Master’s Nursing Programs Act in 2004.
- In 2001, Florida passed the Nursing Shortage Solution Act, which allows nursing programs to increase enrollment without approval from the board of nursing if the program has the necessary resources.

Other Strategies

Because of State budget constraints, public resources do not always meet current needs. As a result, private and other funding sources are supporting program expansion in a number of ways (table 11).

Table 11. Strategies Used by Employers and Nursing Programs

Lead Stakeholder	Strategies
Employers	<ul style="list-style-type: none"> • Mentor students who are enrolled in programs to aid in student retention. • Provide professional development and clear advancement tracks to improve the work environment and improve retention of the existing nurse workforce. • Provide loan repayment to students and provide funds to hire five faculty at the Pasco-Hernando Community College in western Florida.
Nursing Programs	<ul style="list-style-type: none"> • Provide academic support services and faculty and staff mentoring to help students progress through the program and reduce student attrition. • Expand pipeline by establishing innovative and resource-stretching schedules and modes of delivery. Examples include fast-track and slow-track programs and opening up enrollment more than once per year. In addition, nursing programs are using technology to make existing classroom resources available beyond the campus and in remote areas.
Foundations and Nonprofit Partnerships	<ul style="list-style-type: none"> • In a partnership with local hospitals, the Greater Houston Partnership and the Gulf Coast Workforce Board provided 25 faculty positions for local nursing programs to increase their nursing enrollments. • Hospitals and foundations are contributing in Florida to expand program enrollments. Six community health organizations provided a combined \$1.8 million to assist Florida International University’s School of Nursing. The money is used to offer nursing scholarships, hire

	additional faculty and create a new program track.
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III. DEVELOP A SUSTAINABLE WORKFORCE

Ensuring an adequate nursing workforce requires much more than simply increasing the number of RNs in the population. Policymakers need consistent data to identify the most pressing needs, plan programs and evaluate the programs' success. This requires comprehensive State planning and data collection; leveraging funding and other resources; and developing adaptive workforce partnerships at National, State, and local levels.

Objective: Develop a process for gathering data and trends on the nursing workforce and using data to inform policy and workforce planning.

According to the Center for Health Workforce Studies at the University of Albany, in 2002, 44 of 50 States reported that they convened task forces or commissions to study the health workforce shortage.²⁰ Although most of these entities are temporary—formed to answer specific needs and inform State policy on those issues—some evolved into more permanent structures. These coordinated planning approaches are needed to identify needs; set priorities; and build coalitions among public, private and academic groups.

Strategy III-A: Develop a structure to obtain current information, inform policy, and have a sustained focus on nurse workforce issues.

Some States have created such a structure through legislation, while others were led by State health care and hospital associations. These entities are charged with answering various questions, such as the following:

- How is the State's current nursing pipeline and workforce meeting the State's and employers' needs? Does the State have enough BSN-trained nurses and, if not, how might the State increase baccalaureate graduations?
- Where are the shortages most acute? If the State is short nurses in rural areas, what type of approaches will direct RNs to those high-demand areas?
- What are the gaps and overlaps in the current educational infrastructure? What programs are needed? What programs are succeeding in certain measures, such as retaining students and faculty? What programs need sustained investments to meet the State's and employers' needs?

States can choose to develop a temporary commission, committee or advisory council to answer a specific set of questions or fulfill a need, such as conducting a needs assessment or survey. In addition, some States have set up permanent structures within State government to monitor workforce trends, gather data and inform policymaking. Some specific examples follow:

- In 2004, Connecticut legislation established a health care workforce policy board to make recommendations.

- In Florida, the Center for Nursing was created by the Legislature in 2001 to address the nursing shortage and develop a strategic plan.
- Illinois legislation requires the Department of Public Health to establish a nursing workforce database.
- In Massachusetts, recommendations from the faculty shortage report included establishing a Center for Partnerships in Nursing Education, Research and Practice, which would support not only collaborations between employers and educational institutions, but also doctoral fellowships.
- New Jersey appropriated \$1.2 million to establish the New Jersey Collaborative Center for Nursing at Rutgers University. The center works to improve nursing education, recruitment and retention.²¹
- In 2001, the New York State Board of Regents appointed a Blue Ribbon Task Force on the Future of Nursing to assess the nursing shortage and develop solutions and recommendations.²²
- North Carolina's State-supported agency, the North Carolina Center for Nursing, has provided continuous monitoring of health workforce supply and demand since it was created in 1991. "As a result of the continuing work of these groups, North Carolina has been able to anticipate changing health care needs and address them in a timely fashion through various policy initiatives. Consequently, the shortages ... are less pronounced in North Carolina."²³
- Also in North Carolina, the Cecil G. Sheps Center for Health Services Research at the University of North Carolina collects health care workforce data and produces issue briefs, fact sheets, longitudinal studies and policy recommendations.
- Washington's Workforce Training and Education Coordinating Board in 2002 convened, at the request of the Legislature, a Health Care Personnel Shortage Task Force to address the Statewide shortage of health care personnel. The task force was charged with identifying ways to increase education and training program capacity for health care personnel, improving student recruitment into health careers, and recommending modifications to State regulations and statutes to help alleviate the shortage. With special attention to the nursing workforce, the December 2002 task force report to the Legislature calls on the State to provide additional funds to health care training programs to expand capacity, increase compensation to faculty, and expand clinical training opportunities.
- West Virginia's Center for Nursing was created through legislation to establish a Statewide strategic plan.

In addition to creating structures such as a commission to assemble information and guide policy, 27 States and Puerto Rico report having some type of workforce data collection activities under way. For example, the Indiana State Department of Health and Indiana Health Professions Bureau collaborated to implement the 2001 Indiana Registered Nurse Survey. The survey provides information about the RN supply and about RN distribution within the State. In addition to State agencies—departments of health or education and boards of nursing—other organizations such as State health workforce research centers and area health education centers (AHECs) gather data through provider surveys and other means.

Strategy III-B: Develop partnerships to monitor the workforce and gather data. In addition to analyzing health workforce data, these partnerships also convene meetings to discuss challenges and best practices.

A number of States received assistance from the Robert Wood Johnson Foundation Colleagues in Caring Project, which provided grants to States and regions to help them bring together stakeholders from State government, nursing schools, employers and professional associations, among others, to build “... systems of work force development with the capacity to adapt to the rapid and continual changes in the nation’s health care system.” The program was funded between 1995 and 2003. Other examples of State approaches are the following:

- In North Dakota, a broad partnership (involving the Board of Nursing, nurse and health care associations, the State Department of Health and the State Center for Rural Health) worked to analyze health workforce data and trends.
- Also in North Dakota, the Board of Nursing contracted with the University of North Dakota Center for Rural Health to develop a nursing needs assessment to focus on certification, recruitment and retention.²⁴
- The AHEC at Oregon’s Health Sciences University is conducting research on workforce data, with the support of the Northwest Health Foundation.²⁵

IV. IMPROVE THE WORK ENVIRONMENT

About 30 percent of nurses said they were dissatisfied in their current job, according to a 2000 National Sample Survey of Registered Nurses (NSSRN). Nurses who work in hospitals and nursing homes have an even lower job satisfaction level than all nurses. Moreover, a 2001 American Nurses Association survey found that 75 percent of respondents believed that the quality of nursing where they work had declined during the past two years, and 56 percent said that the time they have for patients had decreased.

Policymakers and employers are taking steps to ensure a safe and positive work environment for nurses who already are in the workforce. A number of States have made legislative changes, such as mandatory nurse-to-patient ratios, limits on mandatory overtime and guaranteed whistleblower protections.

- According to the ANA, Connecticut and West Virginia enacted legislation in 2004 to prohibit a hospital from requiring a nurse to accept overtime (except under certain circumstances, as was the case in Connecticut). In 2004, mandatory overtime legislation was introduced in Florida, Georgia, Hawaii, Iowa, Illinois, Massachusetts, Michigan, Missouri, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, Vermont and Washington.
- In 2004, Florida, Hawaii, Illinois, Massachusetts, Rhode Island and Washington introduced legislation that would require certain health care facilities to develop nurse staffing plans. In 2003, Nevada enacted legislation that requires a legislative committee to conduct an interim study on nurse staffing issues. In 2002, five States—California, Kentucky, Oregon, Texas and Virginia—adopted legislation or regulations to require hospitals to use “valid and reliable” nurse staffing plans that reflect various factors—

how sick the patient is, the experience of the nursing staff, and technology and support services available to nurses.

- A number of States—including Colorado, Hawaii, Iowa, Illinois, New Jersey, New York, Pennsylvania, Rhode Island and Tennessee introduced whistleblower legislation in 2004 (it was enacted in Vermont). Whistleblower legislation, although it varies, typically protects workers who speak out against practices that threaten the quality of care patients receive.

In addition, some States are supporting career ladder initiatives, which are designed to help current health care workers upgrade their skills and education to move up the nursing ladder. According to the Center for Health Workforce Studies at the University of Albany (SUNY), in 2002, 14 States were developing or had developed health career ladder programs, and many provided career ladders for certified nurse aides.²⁶ For example, the North Dakota Health Related Technical Skills Project provides career ladder training in nursing to entry-level workers in health-related jobs.

In addition to State-led strategies, employers and schools of nursing are taking steps to improve the quality of nursing (table 12).

Table 12. Employer and School of Nursing Strategies to Improve Working Conditions

Lead Stakeholder	Strategies
Employers	<ul style="list-style-type: none"> • Some hospitals offer recognition programs, career ladder programs, mentoring, tuition reimbursement for continuing education, and other benefits to improve nurse job satisfaction. • Provide professional development and clear advancement tracks to improve the work environment and improve retention of existing nurse workforce. • Become a magnet hospital—a status bestowed on those credentialed by the American Nurses Credentialing Center. These hospitals must meet various quantitative and qualitative standards that typically result in higher job satisfaction, greater nurse input and better patient outcomes.
Partnerships	<ul style="list-style-type: none"> • Policymakers, along with health care providers, businesses and others, have joined the Colleagues in Caring Project, funded by the Robert Wood Johnson Foundation. These regional projects brought together people to, among other things, implement permanent systems of nursing workforce planning.

CONCLUSION

As Chapters 2 and 3 demonstrate, a wide spectrum of policy tools are available to States and their counterparts in business and education. Although some involve significant financial investments, other strategies—such as developing a commission to study workforce trends—do not. To determine the best mix of solutions, States must address the following questions.

- **What are the State’s immediate needs and priorities and how should funds be distributed to reflect those priorities?** For example, if the State’s most critical problem is a faculty shortage, limited resources should be directed to expanding master’s and doctoral level enrollment and to offering scholarships and other incentives to future nursing faculty. On the other hand, if the State’s top priority is expanding the number of BSN-trained nurses, solutions will more likely focus on funding new programs or helping existing ones expand or use technology to reach individuals in rural areas.
- **How can existing State funds be targeted to more effectively meet the State’s long-term workforce needs?** The five States and others are finding ways to direct State and Federal funds into nursing education to achieve certain goals.
 - **Pooling Resources.** States are not only fostering collaboration among the various stakeholders, but they also are leveraging State resources with investments from their partners—a model in many States, including Georgia, where the Intellectual Capital Partnership Program brings together employers, schools of nursing and State funding and resources. In addition to State funds,

many States are finding ways to direct existing Federal workforce funding to nurse training.

- **Achieving Desired Outcomes.** States also are directing institutions of higher education and schools of nursing to achieve certain results with the State funds they receive. Some States have required their universities and community colleges to work together to develop a plan for increasing enrollments and graduations.
- **How can States create a sustainable nursing workforce?** States across the country realize that the problem requires more than funding to expand the pipeline. Rather, the dynamic nature of the nursing shortage—and the various factors that affect supply and demand—often dictate a systematic approach to monitor the workforce. States are creating entities such as commissions and advisory councils not only to gather and analyze data, but also to inform policymaking and workforce development efforts.

Through targeted efforts aimed at expanding the pipeline of incoming students, states are beginning to see increases in applicants, enrollees and graduates, as well as a more diversified student body. However, despite these successes, states continue to struggle with finding ways to expand the capacity of their nursing schools to train and graduate more nurses. At the heart of this problem is an increasingly serious faculty shortage that, left unchecked, is putting the brakes on state efforts to expand their nursing ranks. States and their partners in the private and academic sector will continue to rely on each other to meet the many challenges facing them now and in the future. These partnerships will be critical as states look for ways to expand and sustain a stable and qualified nursing profession.

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