

September 2009

The Registered Nurse Workforce Shortage in Georgia

In the summer of 2006, the University System of Georgia (USG) released a report¹ that clearly outlined concerns with a number of health professions in Georgia. This report built upon earlier work done in Georgia and indicated strong concerns with the number of Registered Nurses (RNs) employed in Georgia. Since that time considerable attention and resources have been provided to increase the size of the RN workforce in Georgia. In many ways positive results have been seen resulting from this increased attention and resourcing, yet concerns linger. In fact, despite the many efforts to build this workforce in Georgia, a shortage of nurses continues to be an issue.

That this is important is beyond question. Registered Nurses play a vital role in the delivery of healthcare. By some estimates, the ratio of physicians to nurses is one to four in the U.S.,² indicating the importance of RNs in the delivery of healthcare. Further, researchers have found that hospitals with lower nurse-to-patient staffing ratios have significantly higher incidences of negative patient safety outcomes including death.³ Thus we must be vigilant to ensure that this workforce is adequate to provide needed services. Regrettably, it appears as though Georgia is facing problems as the growing demand for RNs outpaces the supply of the nursing workforce.

Population Growth

Key factors driving these concerns are that Georgia continues to be one of the fastest growing states in the nation, and one that is aging. As the 9th most populous state in 2009, Georgia continues to attract new residents. Between 2000 and 2030, Georgia is projected to have a population increase of 46.8 percent, growing to over 12 million residents from 8.1 million in 2000. This will make Georgia the 8th fastest growing state between this time period, growing at a rate well above the national average growth rate of 29.2 percent.⁴ Figure 1 presents the projected

¹ University System of Georgia (2006). *Final Report: Task Force on Health Professions Education – Findings and Recommendations*, June.

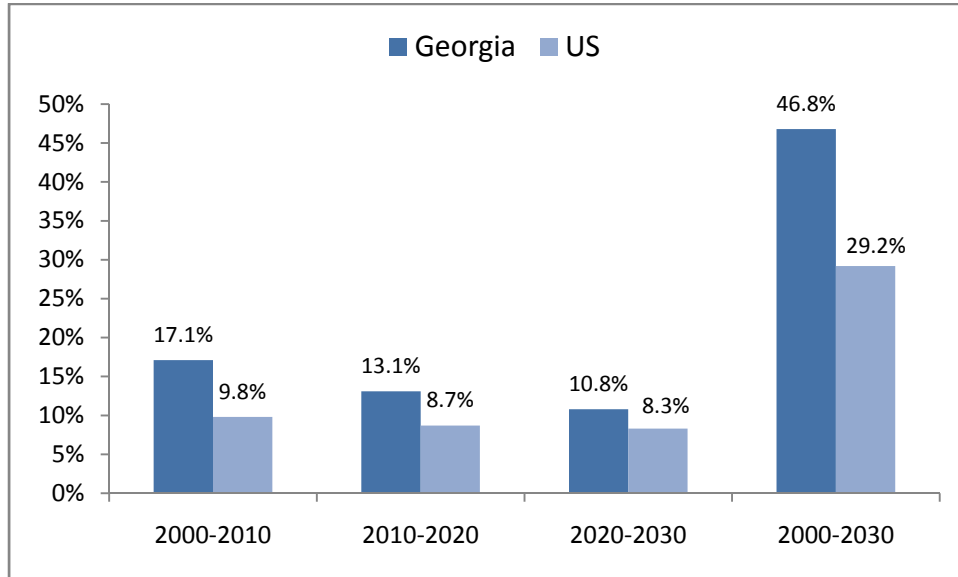
² As reported by the Center for Nursing Advocacy, FAQ, <http://www.nursingadvocacy.org>

³ P. Stone, C. Mooney-Zane, E. Larson, T. Horan, L. Glance, J. Zwanzigar, and A. Dick (2007). “Nurse working conditions and patient safety outcomes,” *Medical Care*, 45(6): 571-578.

⁴ U.S. Census Bureau (2005). *Interim State Population Projections: 2004-2030*. Released April 21, 2005, Washington, DC.

growth rate for Georgia and the U.S. between 2000 and 2030. In each of the time periods presented, Georgia's growth rate exceeds the national average.

Figure 1
Projected Percentage Change in Total Population (2000-2030)

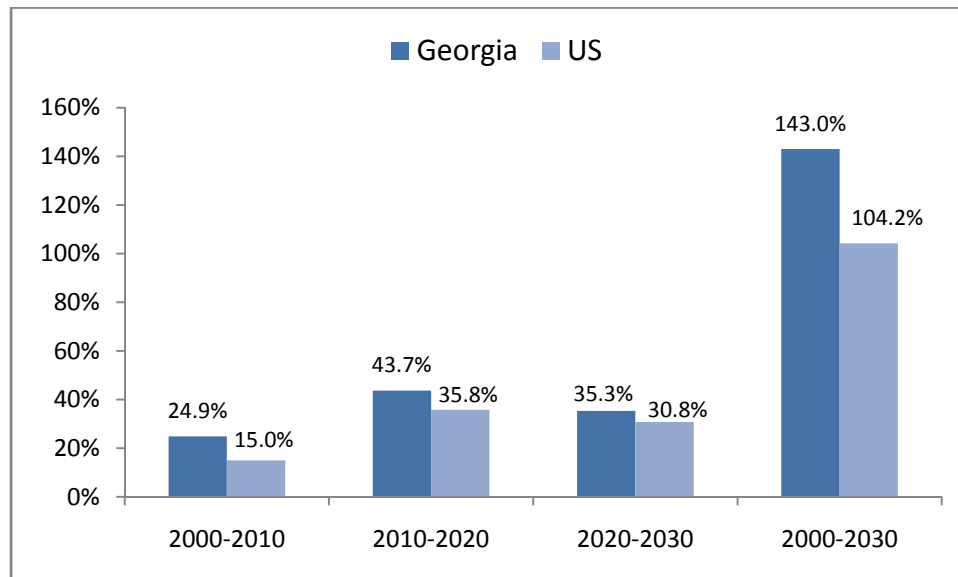


Source: U.S. Census Bureau (2005). *Interim State Population Projections: 2004-2030*. Released April 21, 2005, Washington, DC.

Not only is Georgia's population increasing, the state is also experiencing a rapid growth in the number and percentage of residents age 65 and older. Older populations typically place increased demand on healthcare services. Between 2000 and 2030, Georgia is projected to add 1.1 million people age 65 and older, an increase of 143 percent, which more than doubles the current population in this age group. This growth rate is the 8th largest of the 50 states and District of Columbia and is nearly 40 percentage points higher than the national average. This rate of growth will mean that the state will change from having 9.6 percent of the population being 65 and older in 2000 to 15.9 percent of Georgia residents being age 65 and older in 2030.⁵ Figure 2 presents the projected percentage change in population for residents age 65 and over in Georgia and the nation between 2000 and 2030.

⁵ U.S. Census Bureau (2005). *Interim State Population Projections: 2004-2030*. Released April 21, 2005, Washington, DC.

Figure 2
Projected Percentage Change in Population Age 65 and Over (2000-2030)



Source: U.S. Census Bureau (2005). *Interim State Population Projections: 2004-2030*. Released April 21, 2005, Washington, DC.

As a result of total population growth and change in the number of residents age 65 and over, Georgia must expect to face a substantial increase in demand for healthcare services. This is occurring at a time when the supply of RNs in Georgia is already too low to meet existing demand.

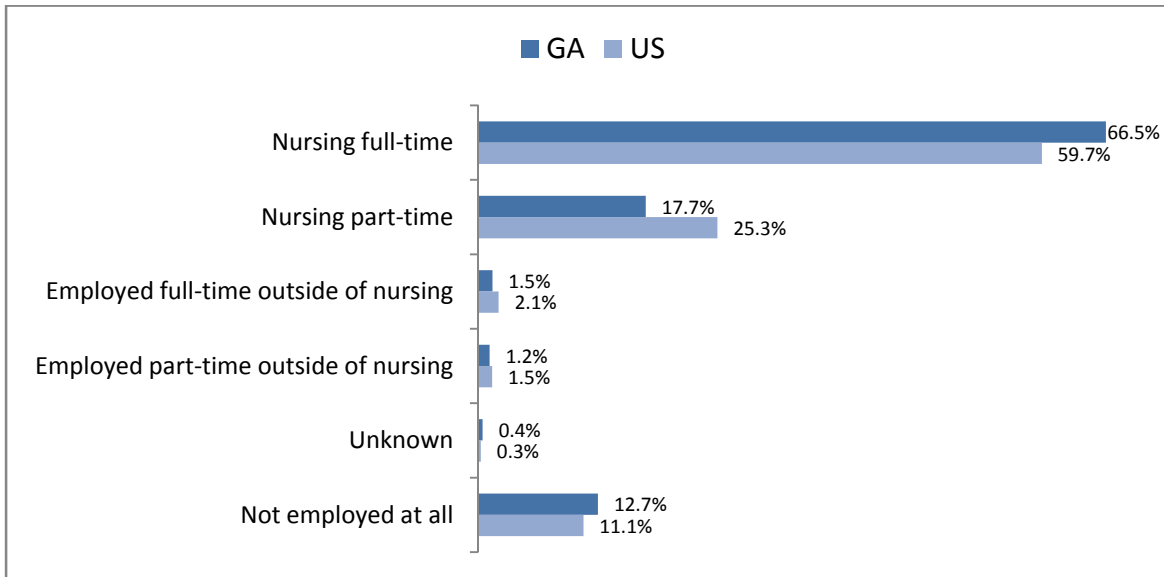
Adequacy of the Supply of Georgia’s RN Workforce

Number of RNs

It is difficult to quantify exactly how many RNs are employed in Georgia. As of July 13, 2009, the Georgia Board of Nursing indicated that there were 101,762 RNs licensed in Georgia. However, not all of these RNs will be practicing full-time in the state. Some RNs may be retired but maintain their license; some may be working only part-time as a nurse; others may live in Georgia but work in contiguous states; yet others may live in other states but maintain an active license in Georgia. For example, the U.S. Department of Health and Human Services Health Resources and Services Administration (HRSA) reports that in 2004 only 66.5 percent of the Registered Nurses in Georgia work full-time in nursing.⁶ RNs also work part-time, are employed in fields outside of nursing, and some do not work at all. Figure 3 delineates the employment status of RNs in Georgia as compared to the RNs at the national level.

⁶ U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC.

Figure 3
Employment Status of RNs (2004)



Source: U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC.

As such, it is difficult to quantify the exact number of RNs currently working in Georgia. Other states require an annual survey of RNs at the time of licensure; however, the Georgia Registered Professional Nurse Practice Act nor the Georgia Board of Nursing have this requirement for nurses licensed in Georgia. Estimates made by labor analysts are currently the best source of data available to understand the nursing shortage in Georgia.

Several federal sources of data exist for quantifying the number of RNs in Georgia including the U.S. Department of Labor’s Bureau of Labor Statistics (BLS) and the U.S. Department of Health and Human Service’s Health Resources and Services Administration. These sources of data are useful in that they each provide a consistent methodology that can provide useful estimates of Georgia’s nursing workforce. Further, while the conclusions drawn by these different methodologies vary, they are often similar and can provide confident estimates. In the case here the BLS estimates that in May 2008, there were 64,920 RNs working in Georgia.⁷ Through its quadrennial Sample Survey of Registered Nurses, HRSA estimates that in 2004 (the most recent data available from HRSA), there were 66,512 full-time equivalent (FTE) nurses employed in Georgia.⁸ Using these estimates, one could state that there are approximately 65,000 FTE RNs (give or take a few thousand) working in Georgia at this time.

⁷ Bureau of Labor Statistics (2008). State Occupational Employment and Wage Estimates, May 2008, Washington, DC.

⁸ U.S. Department of Health and Human Services (2007).

Ratio of RNs to Population

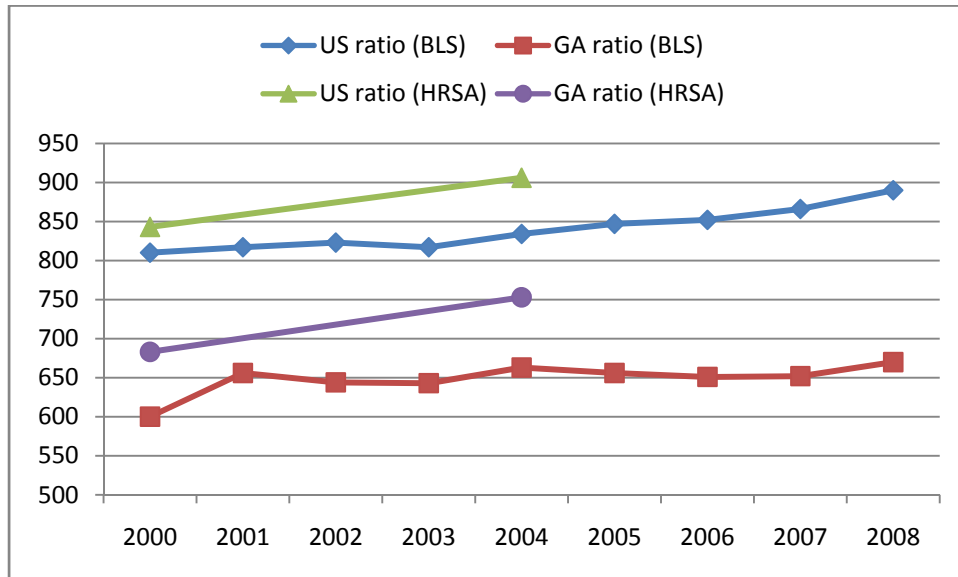
The numbers provided by HRSA or the BLS can also be used to compare Georgia's nursing workforce to the nursing workforce in other states. Unfortunately, Georgia consistently ranks below the national average on the ratio of RNs to population. This low ratio makes it difficult for employers to find an adequate supply of qualified nurses to fill vacant positions in hospitals, nursing homes, doctor's offices, and other healthcare delivery settings. It also threatens the quality of the healthcare provided to Georgia citizens.

Using data from the U.S. Census Bureau, the Bureau of Labor Statistics, and the Health Resources and Services Administration, the number of RNs per 100,000 population in Georgia is calculated in two ways. First, the number of RNs is calculated using population estimates provided by the U.S. Census Bureau and the estimated number of RNs provided by the Bureau of Labor Statistics.⁹ In 2008, the U.S. average was 890 RNs per 100,000 in population while in Georgia, the ratio was 670 RNs per 100,000 in population, a difference of 220 nurses per 100,000 in population. This places Georgia at 46th out of the 50 states and the District of Columbia in the number of RNs per population. (The full list of state ratios is included in Table A-1 in the appendix for each year.)

A second ratio calculation uses data from the Health Resources and Services Administration. HRSA data finds that in 2004 (the most recent data available), the national ratio was 906 RNs per 100,000 in population, while in Georgia, the ratio was 753 RNs per 100,000 in population, a difference of 153 RNs per 100,000 in population. Figure 4 presents the number of RNs per 100,000 in population using both the BLS and HRSA estimates for the national and Georgia averages. (See the appendix for Table A-2 which provides of each year's number of RNs per 100,000.)

⁹ Calculations made based on the Bureau of Labor Statistics, State Occupational Employment and Wage Estimates, May 2008, available at <http://www.bls.gov/data/home.htm>; and the Annual Population Estimates by State, July 1, 2008 Population, U.S. Census Bureau, available at <http://www.census.gov/popest/states/NST-ann-est.html>

Figure 4
Number of RNs per 100,000 Population in Georgia



Source: Bureau of Labor Statistics (2008). State Occupational Employment and Wage Estimates; U.S. Census Bureau (2008). Annual Population Estimates by State; and U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC.

This places Georgia near the bottom of state rankings in the number of RNs per population. According to HRSA’s calculations, Georgia is 40th out of the 50 states and the District of Columbia for its supply of RNs per 100,000 population.¹⁰ While the BLS and HRSA numbers place Georgia differently in state rankings, either ranking you use, Georgia is consistently in the bottom 10 states in terms of the number of RNs per population. Table 1 presents the ranking of Georgia as compared to the 50 states and the District of Columbia between 2000 and 2008 for each year that the data are available.

¹⁰ U.S. Department of Health and Human Services (2007).

Table 1
Georgia Ranking in the Number of RNs per 100,000 Population (50 states + DC)

Year	BLS/Census Ranking	HRSA Ranking
2008	46	
2007	45	
2006	45	
2005	46	
2004	42	40
2003	43	
2002	43	
2001	44	
2000	47	43

Source: Bureau of Labor Statistics (2008). State Occupational Employment and Wage Estimates; U.S. Census Bureau (2008). Annual Population Estimates by State; and U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC.

While the overall ratio of RNs to the population in Georgia appears to be rising slightly (Figure 4), Georgia’s ranking among the 50 states and the District of Columbia has decreased. In 2007, Georgia had 652 RNs per 100,000 in population and ranked 45th in the nation according to the BLS ranking. By 2008, Georgia’s ratio of RNs per 100,000 in population increased to 670 which is a positive development; however, Georgia still lagged the national average and decreased to 46th in the nation in the number of RNs per population. Further, research from federal agencies, professional organizations, labor market analysts and others point to an already existing shortage in the number of RNs in the United States.¹¹ That Georgia is already at the bottom of state rankings that contribute to national averages is highly concerning. If a national shortage already exists and Georgia is at the bottom in terms of the number of nurses currently available, Georgia is facing a particularly critical shortage of nurses. This low supply of RNs available to provide healthcare delivery to Georgia’s residents is cause for concern.

Gaps between Supply and Demand

The current recession facing Georgia’s and the nation’s economy that began in December 2007 has prompted many RNs who were previously out of the workforce to return to work and has delayed retirement for others. Further, many would-be patients are delaying elective surgery. These and other factors are temporarily alleviating the extent of the nursing shortage. This relaxing of the gap between the supply and demand of RNs at the national level has been shown to be a temporary situation and the projected shortage is expected to continue into the next decade as the current aging workforce retires.¹² Georgia’s current nursing workforce shortage is

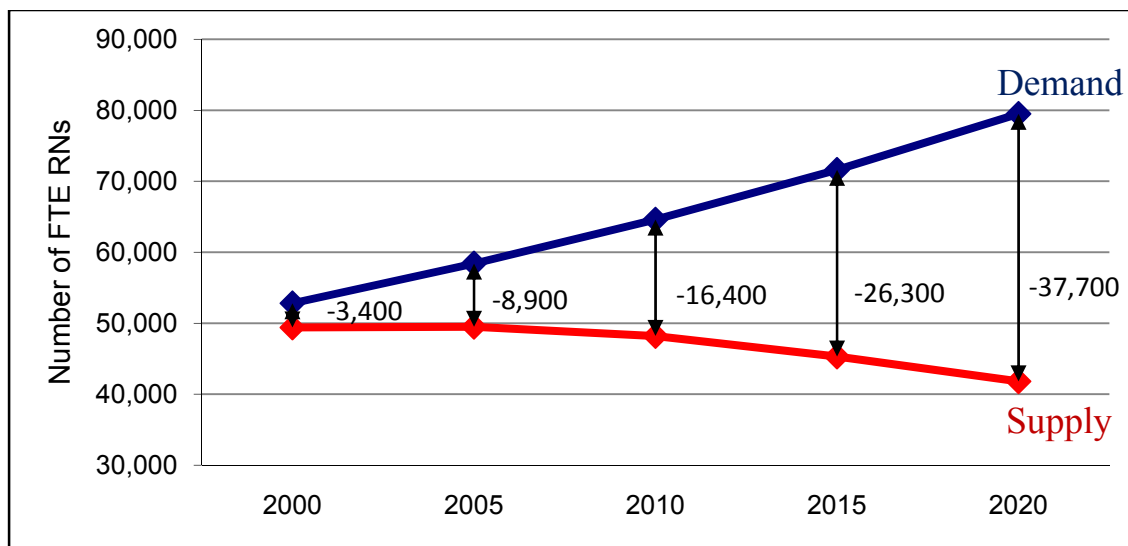
¹¹ For example, see data and publications from the BLS, HRSA, American Association of Colleges of Nursing, American Health Care Association, American Hospital Association, and others.

¹² Buerhaus, Peter I., David I. Auerbach, and Douglas O. Staigler (2009). “The recent surge in nurse employment: Causes and implications,” *Health Affairs*, 28(4): 657-668.

less likely than other states to be resolved by the recession as Georgia is already starting at the bottom of state rankings in terms of the ratio of RNs to the increasing and aging Georgia population. Further, the Georgia Department of Labor indicated that between June 2008 and June 2009, while the state unemployment rate increased to the highest level ever recorded at 10.1 percent, the healthcare industry continued to add jobs.¹³ The growing demand for healthcare workers in Georgia coupled with the existing shortage of RNs indicates that the RN shortage is not likely to be greatly affected by the existing recession in Georgia and the nation's economy.

Given this, data on Georgia's nursing workforce indicate that there is a growing gap in the supply and demand of Registered Nurses. According to HRSA, demand for nurses in 2004 exceeded supply by roughly 8,000 RNs. Figure 5 below indicates how HRSA projects this shortage to more than double by 2010 when Georgia will face an RN shortfall of over 16,400 nurses. This shortage is projected to grow to over 37,700 by 2020. HRSA's supply model takes into consideration new graduates from nursing programs, location and employment patterns of the current RN population, and separations from the workforce due to issues such as career changes and retirement. To project demand, HRSA takes into consideration a growing and aging population, changing patient acuity, economic factors, and characteristics of the healthcare operating environment.¹⁴ HRSA's analysis uses data from 2004. Since that time, the state's nursing programs at the USG, Technical College System of Georgia, and private institutions have increased their production of new RNs; however, the growth in new graduates will only make a slight dent in HRSA's projections from 2004.

Figure 5
RN Shortage Projections for Georgia



Source: U.S. Department of Health and Human Services (2004). *What is Behind HRSA's Projected Supply, Demand, and Shortage of Registered Nurses?*, September, Washington, DC.

¹³ Georgia Department of Labor (2009). *Georgia's June jobless rate hits double digits at 10.1 percent*, Press Release, issued July 15, 2009.

¹⁴ U.S. Department of Health and Human Services (2007).

Not surprisingly, the Georgia Department of Labor (GDOL) lists a career as a Registered Nurse as one of its “Hot Careers” and projects annual job openings of 3,010 through 2016.¹⁵ Between 2009 and 2016, this would require an additional 24,080 RNs to fill new positions, in addition to those positions left vacant by RNs retiring, moving, changing jobs, and other life changes.

RN Vacancy Rates

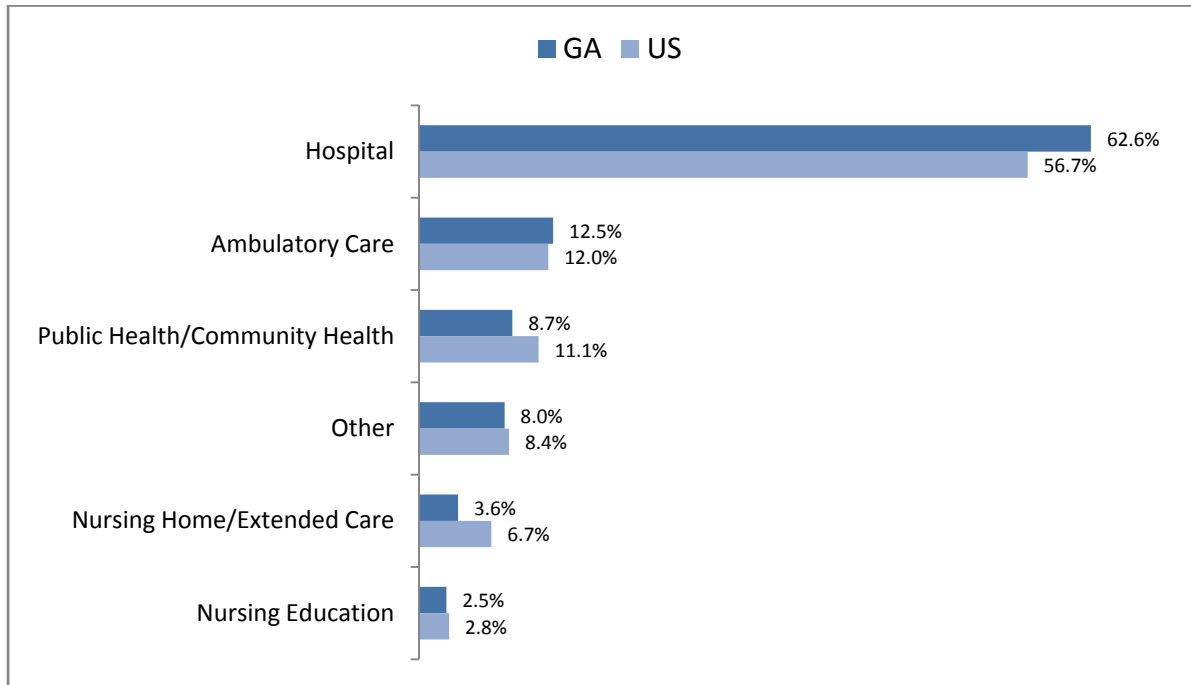
This shortage of RNs is validated by employers at the local level. The Georgia Hospital Association (GHA) indicates that in 2006, RN vacancy rates average 10.7 percent for its member hospitals, up from 8.8 percent in 2004.¹⁶ GHA hospitals appear to be having a more difficult time in filling vacant RN positions as time progresses. This high vacancy rate is of concern given the fact that hospitals are the dominant employer of RNs. Data from HRSA in 2004 indicates that the largest employer of RNs in Georgia is hospitals, with 62.6 percent of RNs employed in hospitals in Georgia, compared with 56.7 percent in the US.¹⁷ Figure 6 presents the distribution of RNs by employment settings in Georgia as compared to the national average in 2004. Hospitals are by far the largest employer in Georgia, followed by ambulatory care settings (12.5 percent) and public health and community health (8.7 percent).

¹⁵ Georgia Department of Labor (2009). *Georgia’s Hot Careers to 2016*, Atlanta, GA.

¹⁶ Georgia Hospital Association (2006). *2006 Georgia Hospital Association Workforce Report: Changing Demographics – Bridging Generations*, Marietta, GA.

¹⁷ U.S. Department of Health and Human Services (2007).

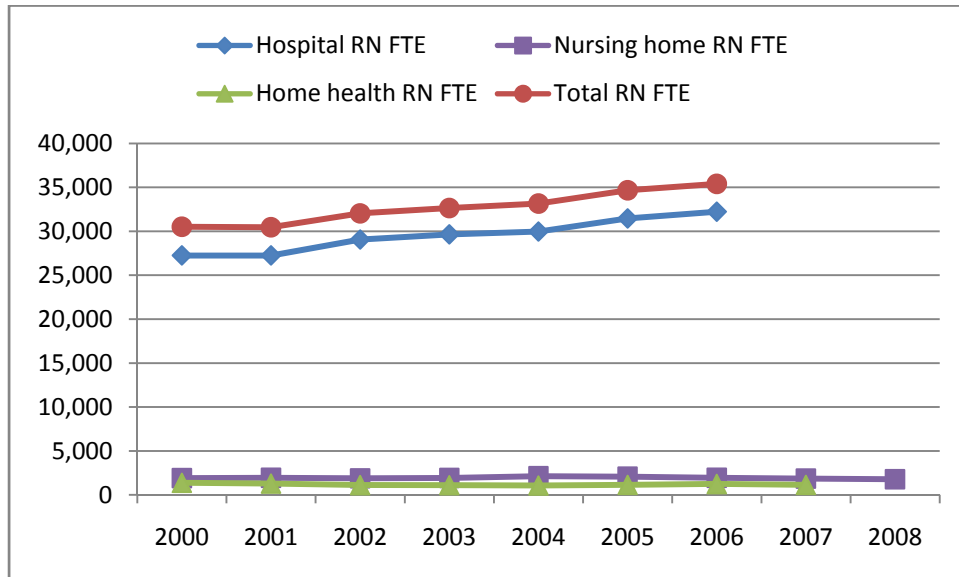
Figure 6
Distribution of RNs by Employment Settings (2004)



Source: U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC.

An additional source of data comes from required surveys conducted at the Georgia Department of Community Health (DCH). DCH conducts annual surveys of healthcare providers in the state. Three of these surveys provide data on the number of budgeted FTE RNs, vacant budgeted FTE RNs, and the average time needed to fill RN vacancies in hospitals, nursing homes, and home health agencies. In the DCH survey analysis, hospitals accounted for 91 percent of the budgeted RN positions in these three settings in 2006, while nursing homes accounted for 5.4 percent and home health agencies accounted for 3.5 percent of the budgeted positions. Figure 7 presents the number of budgeted FTE RN positions at hospitals, nursing homes, and home health agencies completing the DCH annual surveys. The overall number of FTE RN positions is increasing in Georgia, with hospitals accounting for the largest increase and nursing homes and home health agencies slightly decreasing over time. (A table of the numbers for each is provided in the appendix in Table A-3.) A slight decrease in the demand for RNs may possibly be explained by licensed practical nurses (LPNs) and others fulfilling roles once performed by RNs.

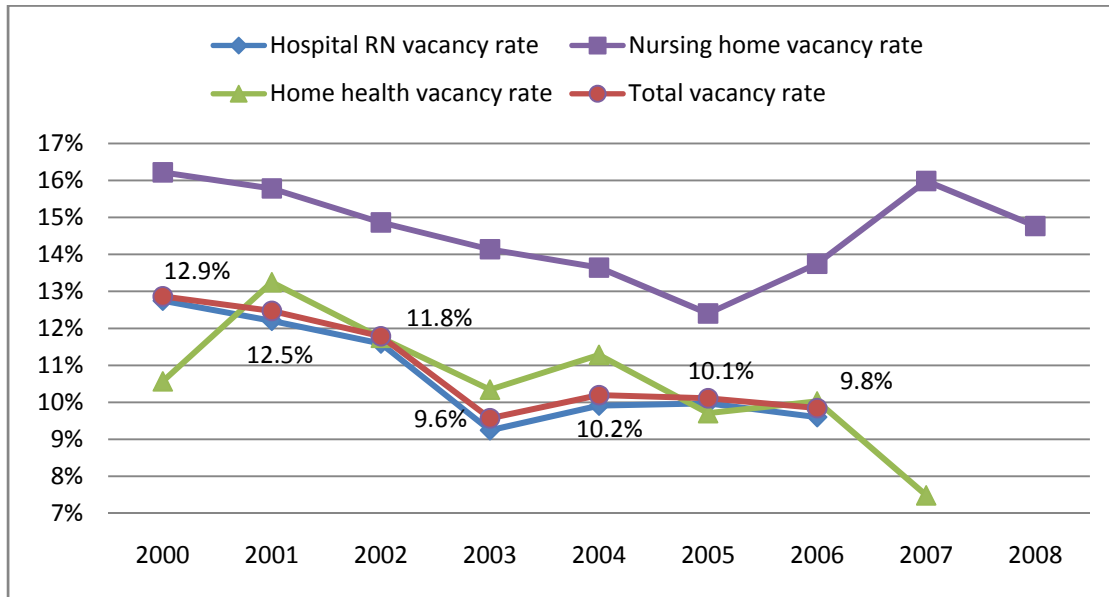
Figure 7
FTE RN Positions at Georgia Hospitals, Nursing Homes, and Home Health Agencies



Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

Using the three DCH surveys, RN vacancy rates were calculated for hospitals, nursing homes, home health agencies, and a total weighted RN vacancy rate for all three provider types. Figure 8 presents the RN vacancy rates for each type of provider and the overall rate. The figure supplies the number for the total vacancy rate for each year. The exact vacancy rates for the hospitals, nursing homes, and home health agencies are provided in Table A-4 the appendix.

Figure 8
RN Vacancy Rates at Georgia Hospitals, Nursing Homes, and Home Health Agencies



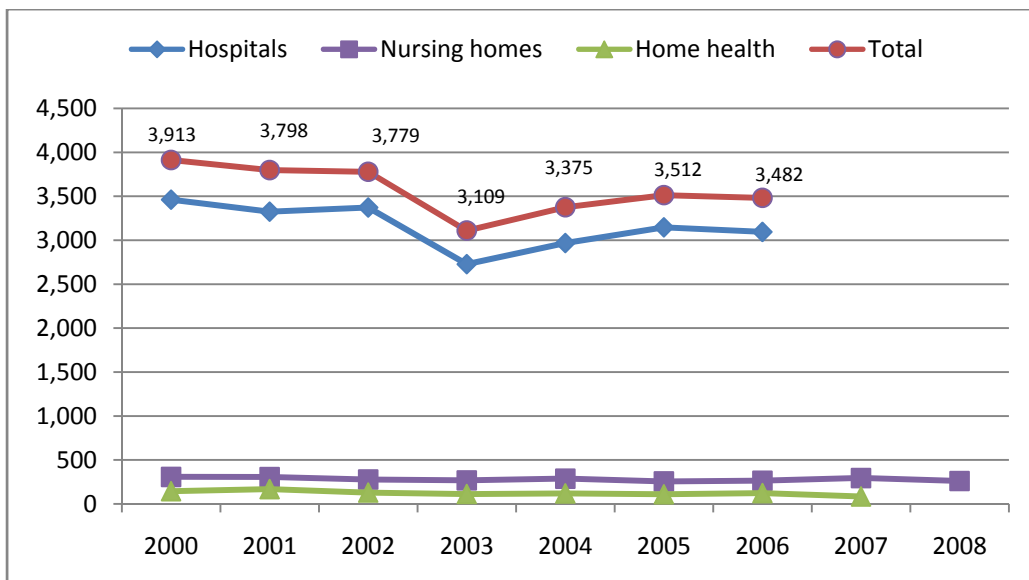
Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey. Data labels provided for the total vacancy rate.

As Figure 8 delineates, the total RN vacancy rate for Georgia hospitals, nursing homes, and home health agencies between 2000 and 2006 fluctuates between a high of nearly 13 percent in 2000 to approximately 10 percent in 2006. Nursing homes have the highest RN vacancy rates ranging from over 16 percent in 2000 to approximately 15 percent in 2008. Nursing home RN vacancy rates decreased from 2000 to 2005, but rose sharply between 2005 and 2007, indicating that nursing homes are having a difficult time filling RN positions. Given that baby boomers are nearing retirement age, nursing homes are likely to see an especially sharp increase in demand for their services resulting in an increased RN vacancy rate. Hospitals, the largest employer of nurses in Georgia, have seen their RN vacancy rates decrease from 12.7 percent in 2000 to 9.6 percent in 2006 according to the DCH survey. This contradicts the RN vacancy rate trend provided by the GHA survey data which shows an increasing vacancy rate between 2004 (8.8 percent) and 2006 (10.7 percent). Despite this, both surveys indicate that the RN vacancy rate in Georgia hospitals hovers around 10 percent, an issue that must be addressed as Georgia’s population continues to grow and get older.

The data on FTE counts provided by the DCH indicate that the number of RN FTE positions in hospitals has increased from 27,251 in 2000 to 32,233 in 2006, while during that same time the hospital RN vacancy rate decreased from 12.7 percent to 9.6 percent. Using the number of vacant budgeted RN FTE positions reported in the survey indicates that there were 367 fewer FTE RN positions open in Georgia hospitals in 2006 than in 2000. This is likely a temporary constriction between the supply and demand of the RN workforce as the number of FTE positions increases and the RN vacancy rate fluctuates between a high of 12.7 percent in 2000, to a low in 2003 of 9.2 percent, and increasing back to 9.6 percent in 2006. The gap between the funded FTE

positions and open FTE positions in nursing homes and home health agencies is smaller, with 47 fewer open positions in nursing homes in 2008 over 2000 numbers, and 60 fewer open positions in home health agencies in 2007 over 2000. Although this data appears to show that the gap in the supply and demand is staying fairly consistent, it only accounts for a portion of the employers of the RN workforce in Georgia. For instance HRSA's 2004 survey of the RN workforce indicates that 62.6 percent of Georgia's RNs are employed in hospitals and 3.6 percent are employed in nursing homes (Figure 6). This leaves a gap of more than a third of Georgia's RN workforce employed in other settings. Data is not currently available on their open RN positions. Further, as stated previously, it is likely that nursing homes and home health agencies are filling vacant positions with LPNs instead of seeking to fill open positions with RNs who may be seeking positions in other settings. Figure 9 presents the total number of vacant FTE RN positions at Georgia hospitals, nursing homes, and home health agencies. A total count is also provided. A table of the full figures for each type of healthcare organization is provided in the appendix in Table A-5.

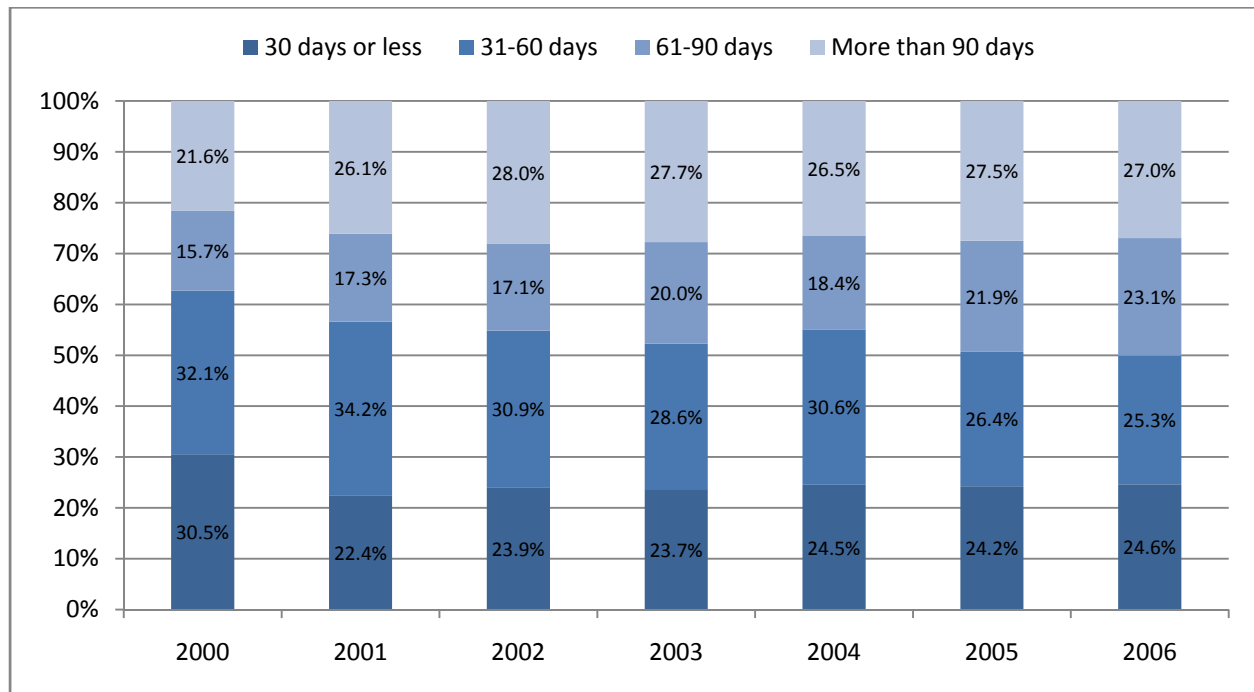
Figure 9
Number of Vacant FTE RN Positions at Hospitals, Nursing Homes
and Home Health Agencies



Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey. Data labels provided for the total number of vacant FTE positions.

The Department of Community Health surveys also provide data on the time to fill vacant RN positions at hospital, nursing homes, and home health agencies. The time to fill the vacant positions is weighted for the total number of hospitals, nursing homes, and home health agencies reporting this data. Figure 10 presents the total time to fill vacant positions for these healthcare providers in Georgia between 2000 and 2006. The individual results for hospitals, nursing homes, and home health agencies are provided in the appendix.

Figure 10
Time to Fill Vacant RN Positions at Hospitals, Nursing Homes, and Home Health Agencies



Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey, 2000-2006.

The DCH time to fill vacancies data indicates that the overall time to fill vacant RN positions in hospitals, nursing homes, and home health agencies is increasing. Between 2000 and 2006, the percentage of healthcare providers that indicated it took 60 days or less to fill vacant RN positions decreased from 62.6 percent to 49.9 percent, while those reporting that it took 61 or more days increased from 37.3 percent to 50.0 percent. In each of the three healthcare provider categories, the time spent to fill vacant positions increased (see Appendix for data). Between 2000 and 2006, hospitals reporting that it took fewer than 60 days to fill vacant RN positions decreased from 55.5 percent to 45.1; nursing homes decreased from 65.2 percent to 51.9 percent; and home health agencies decreased from 68.0 percent to 51.1 percent. Each group reported that it was increasingly taking more than 61 days to fill vacant RN positions.

The results of the supply and demand data for the Georgia RN workforce indicate that there has been a consistent gap in the available supply of RNs to fill the demand for RNs from various healthcare delivery settings. HRSA data shows that a widening gap exists in the supply and demand that is expected to continue growing. Survey data from the DCH shows that it is taking healthcare providers a longer time to fill vacant positions and that the RN vacancy rate for 2006 was 9.8 percent for hospitals, nursing homes, and home health agencies.

Characteristics of Georgia's RN Workforce

Age

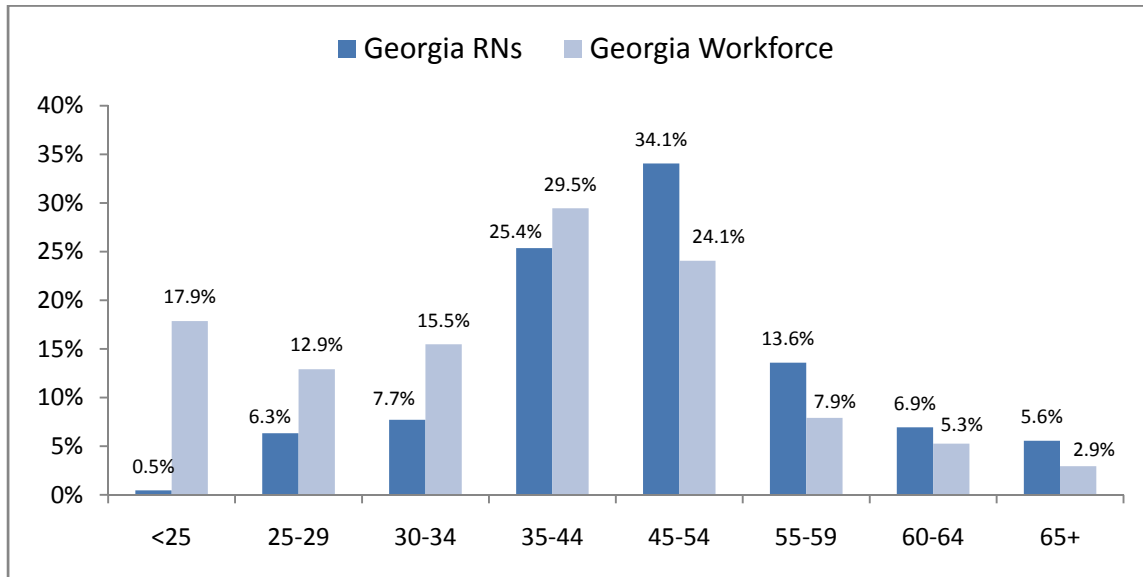
Georgia's growing nursing shortage is intensified given the fact that many of Georgia's RNs are quickly reaching retirement age. A potential crisis exists in the next seven to 10 years as RNs begin qualifying for Social Security retirement benefits at age 62¹⁸ and Medicare benefits at age 65. The average age of Georgia's RNs in 2004 was 47.2 years old. A full 26 percent of RNs in Georgia were aged 55 or older in 2004, with 11 years or fewer to reach full retirement age at 66. This contrasts with only 16.1 percent of the total Georgia workforce. Further, 5.6 percent of Georgia's RNs are age 65 or older and already eligible to retire, compared with only 2.9 percent of the total Georgia workforce.

On the flip side of age demographics for Georgia's RN workforce, only 6.8 percent were under age 30 in 2004, compared to 30.8 percent of the total Georgia workforce. The RN workforce pipeline is currently not large enough to replace older workers who are expected to retire in the next few years.¹⁹ Using HRSA and Census data, Figure 11 compares the age of the RN workforce and the total workforce in Georgia as of 2004. The percentage of the RN workforce as compared to the overall Georgia workforce is larger for every age grouping from 45 and over, indicating that Georgia's RN workforce is older than the Georgia workforce as a whole.

¹⁸ Individuals can start receiving Social Security retirement benefits as early as age 62, but the amount received will be less than if they wait until full retirement age. Individuals born before 1938 reach full retirement age at 65, while people born 1943-1954 will reach full retirement age at 66. Retirement age will gradually increase to 67 for people born 1960 or later.

¹⁹ U.S. Department of Health and Human Services (2007).

Figure 11
Age of Georgia RN Workforce vs. Total Georgia Workforce in 2004



Source: U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC; and U.S. Census Bureau (2004). 2004 American Community Survey, public-use microdata sample data. Note: The labor force is defined as anyone who is currently employed or unemployed seeking employment.

Race/ Ethnicity and Gender

Another obstacle for Georgia’s RN workforce is that the current race and ethnicity of the RN community does not match that of the Georgia population. Issues with diversity exist. This is important as national organizations, including the American Association of Colleges of Nursing, HRSA’s Division of Nursing, the American Hospital Association, Robert Wood Johnson Foundation, and others point to a connection between a culturally diverse nursing workforce and provision of quality, culturally competent patient care.²⁰ Further, the National Advisory Council on Nurse Education and Practice found that a culturally diverse nursing workforce is required to reduce health disparities that exist among minority populations.²¹

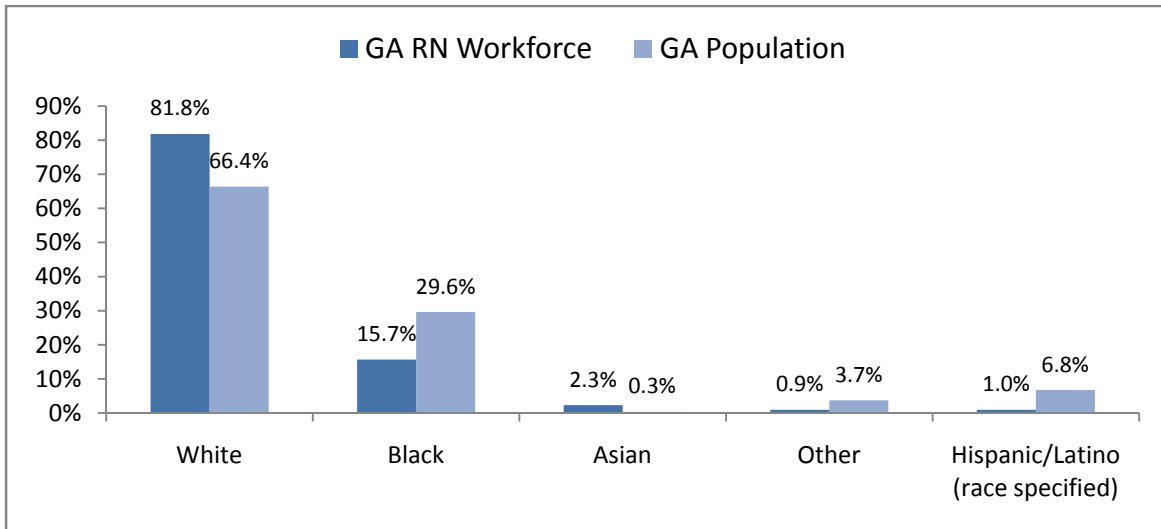
Overwhelming, the Georgia RN workforce is White with 81.8 percent falling into this category in 2004, while Georgia’s population at the same time was 66.4 percent. Similarly, Georgia’s population was nearly 30 percent Black in 2004, while the RN workforce was only 15.7 percent — a gap of 13.9 percent, indicating under-representation by Blacks in the RN workforce. In addition, 6.8 percent of Georgia’s residents identified themselves as Hispanic/Latino (regardless

²⁰ American Association of Colleges of Nursing, Fact Sheet: Enhancing Diversity in the Nursing Workforce, March 2009, <http://www.aacn.nche.edu/Media/FactSheets/diversity.htm>

²¹ U.S. Department of Health and Human Services (2000). *National Advisory Council on Nurse Education and Practice: First Report to the Secretary of Health and Human Services and the Congress*, Washington, DC.

of race) in 2004, while only 1.0 percent of the RN workforce did. Figure 12 provides the racial and ethnic backgrounds of Georgia’s RN population in 2004.

Figure 12
Race/Ethnicity of the Georgia RN Workforce and Population (2004)



Source: U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC.

An additional area of concern is that Georgia’s RN workforce is dominated by female nurses. According to HRSA’s data, only 5.1 percent of Georgia’s RNs in 2004 were male. Georgia’s low representation by men in the RN workforce is even lower than the national average of 5.8 percent.²²

Strategies for Building Georgia’s RN Workforce

These data leave a clear message. Georgia must find ways to address the increasing shortage of Registered Nurses to care for its growing and aging population. The quality of healthcare for all Georgia residents is at stake. Fortunately, the University System, Technical College System and private institutions have made great strides in addressing this problem. In the 2007-2008 academic year, the University System of Georgia (USG) and the Technical College System of Georgia (TCSG) produced 2,231 new pre-licensure nursing graduates. For the USG this represents roughly 1,000 more graduates than were produced in 2002. For the TCSG this reflects an increase in the number of nursing programs they operate. In addition, the private institutions produced approximately 300 new RNs in the 2007-2009 academic year, representing a critical component of Georgia productivity.

²² U.S. Department of Health and Human Services (2007).

More efforts are ongoing, with each system pursuing different paths for expanding its production of new nurses. The fulfillment of these efforts will serve Georgia well. However, other avenues must also be pursued that support the expansion of additional nursing education capacity in the state. These expansion efforts must continue producing high-quality nursing graduates who pass the NCLEX-RN licensing exam at rates higher than the national average. For example, in 2008, the percent of USG first-time nursing candidates passing the NCLEX-RN was 90.1 percent, compared to a national average of 86.7 percent – a difference of 3.4 points. Further, the dialog on this matter taking place within the USG's Nursing Education Task Force and within other nursing leadership groups must continue, as through them sound strategies can be developed and implemented.

Yet one additional item should not be forgotten in this effort. If Georgia is to succeed in its efforts with the nursing workforce, it must have better surveillance of the existing nursing workforce. The establishment of the Center for Health Workforce Planning and Analysis within the USG will play an important part in this area, but more resources and tools need to be developed. These tools may include surveys of employer groups and even licensure renewal surveys, but in the end they must provide clear pictures of both demand and supply of this critical resource.

Appendix

Table A-1
Number of RNs per 100,000 in Population (BLS/Census data)

50 states + District of Columbia	2008	2007	2006	2005	2004	2003	2002	2001	2000
Alabama	891	911	872	821	830	790	782	781	702
Alaska	780	753	776	754	748	782	808	742	736
Arizona	581	546	517	521	565	577	596	567	555
Arkansas	805	773	748	730	730	698	690	673	657
California	654	638	646	629	625	583	590	582	598
Colorado	798	758	724	707	645	650	648	666	700
Connecticut	1010	990	993	979	930	921	908	913	904
Delaware	1038	974	918	917	918	776	804	790	839
District of Columbia	1561	1,379	1354	1433	1309	1316	1393	1,375	1534
Florida	797	812	810	782	752	774	780	883	929
Georgia	670	652	651	656	663	643	644	656	600
Hawaii	680	750	752	729	635	610	625	666	639
Idaho	712	640	622	659	738	748	749	746	744
Illinois	843	810	807	806	791	794	781	822	831
Indiana	886	863	839	836	785	796	810	795	786
Iowa	1005	989	1044	1013	1017	920	945	921	890
Kansas	893	867	856	924	945	915	918	819	792
Kentucky	962	922	907	904	880	872	862	843	843
Louisiana	898	911	894	879	872	837	818	796	768
Maine	1067	1,051	1041	1016	1019	901	935	948	895
Maryland	901	869	849	879	878	864	866	833	821
Massachusetts	1226	1,214	1187	1196	1167	1176	1116	1,158	1202
Michigan	866	839	840	805	785	753	773	767	786
Minnesota	1068	1,014	962	966	948	998	1022	985	945
Mississippi	931	869	866	895	894	838	811	783	771
Missouri	1017	958	950	923	934	880	895	907	877
Montana	773	747	770	800	821	846	840	819	829
Nebraska	1061	1,007	955	938	994	955	946	967	914
Nevada	613	572	564	580	608	643	588	607	560
New Hampshire	996	967	948	937	915	923	933	934	917
New Jersey	871	904	927	935	863	844	859	831	861
New Mexico	600	579	601	583	642	612	630	602	571
New York	866	865	856	853	861	866	855	841	841
North Carolina	913	884	839	831	827	803	797	803	754
North Dakota	988	1,094	1082	1060	1010	981	975	1,001	1021
Ohio	1001	1,002	976	930	916	900	918	934	885
Oklahoma	735	710	691	698	641	621	620	580	643
Oregon	791	793	761	771	729	733	749	741	705
Pennsylvania	1037	1,016	1017	1000	989	961	955	925	901

Rhode Island	1081	1,002	994	996	995	1011	1052	1,085	1059
South Carolina	823	795	735	732	717	706	697	678	654
South Dakota	1245	1,214	1195	1159	1157	1059	1104	1,100	1077
Tennessee	991	893	869	870	883	843	914	881	887
Texas	676	660	669	656	640	611	628	619	634
Utah	630	630	640	621	567	566	591	583	613
Vermont	950	911	946	897	921	896	884	823	787
Virginia	773	749	724	713	723	695	697	677	650
Washington	794	772	756	764	716	735	728	708	717
West Virginia	932	937	850	866	852	896	873	888	880
Wisconsin	919	905	870	855	833	841	855	882	892
Wyoming	807	813	782	778	727	717	710	738	711

Source: Bureau of Labor Statistics (2008). State Occupational Employment and Wage Estimates; U.S. Census Bureau (2008). Annual Population Estimates by State; and U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC.

Table A-2
BLS/Census and HRSA Averages for RNs per 100,000

	2000	2001	2002	2003	2004	2005	2006	2007	2008
US average (BLS/Census)	810	817	823	817	834	847	852	866	890
GA (BLS/Census)	600	656	644	643	663	656	651	652	670
US average (HRSA)	843				906				
GA (HRSA)	683				753				

Source: Bureau of Labor Statistics (2008). State Occupational Employment and Wage Estimates; U.S. Census Bureau (2008). Annual Population Estimates by State; and U.S. Department of Health and Human Services, National Center for Health Workforce Analysis (2007). *The Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses*, Raw data file, March, Washington, DC.

**Table A-3:
FTE RN Positions at Georgia Hospitals, Nursing Homes, and Home Health Agencies**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hospital RN FTE	27,251	27,245	29,063	29,648	29,975	31,465	32,233		
Nursing home RN FTE	1,899	1,933	1,866	1,904	2,113	2,067	1,930	1,842	1,764
Home health RN FTE	1,362	1,278	1,104	1,093	1,059	1,128	1,232	1,123	
Total RN FTE	30,512	30,455	32,032	32,644	33,146	34,660	35,395		

Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

**Table A-4
Vacancy Rates at Georgia Hospitals, Nursing Homes, and Home Health Agencies**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hospitals	12.7% (N=171)	12.2% (N=177)	11.6% (N=176)	9.2% (N=171)	9.9% (N=173)	10.0% (N=170)	9.6% (N=163)		
Nursing Homes	16.2% (N=360)	15.8% (N=358)	14.9% (N=368)	14.1% (N=369)	13.6% (N=376)	12.4% (N=374)	13.7% (N=371)	16.0% (N=366)	14.8% (N=364)
Home Health Agencies	10.6% (N=96)	13.2% (N=96)	11.7% (N=91)	10.3% (N=98)	11.3% (N=94)	9.7% (N=98)	10.0% (N=96)	7.5% (N=89)	
Total	12.9%	12.5%	11.8%	9.6%	10.2%	10.1%	9.8%		

Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

**Table A-5
Number of Vacant FTE RN Positions at Georgia Hospitals, Nursing Homes, and Home Health Agencies**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hospitals	3,461	3,324	3,371	2,728	2,968	3,147	3,094		
Nursing homes	308	305	278	268	287	256	264	295	261
Home health agencies	144	169	129	113	120	109	123	84	
Total	3,913	3,798	3,779	3,109	3,375	3,512	3,482		

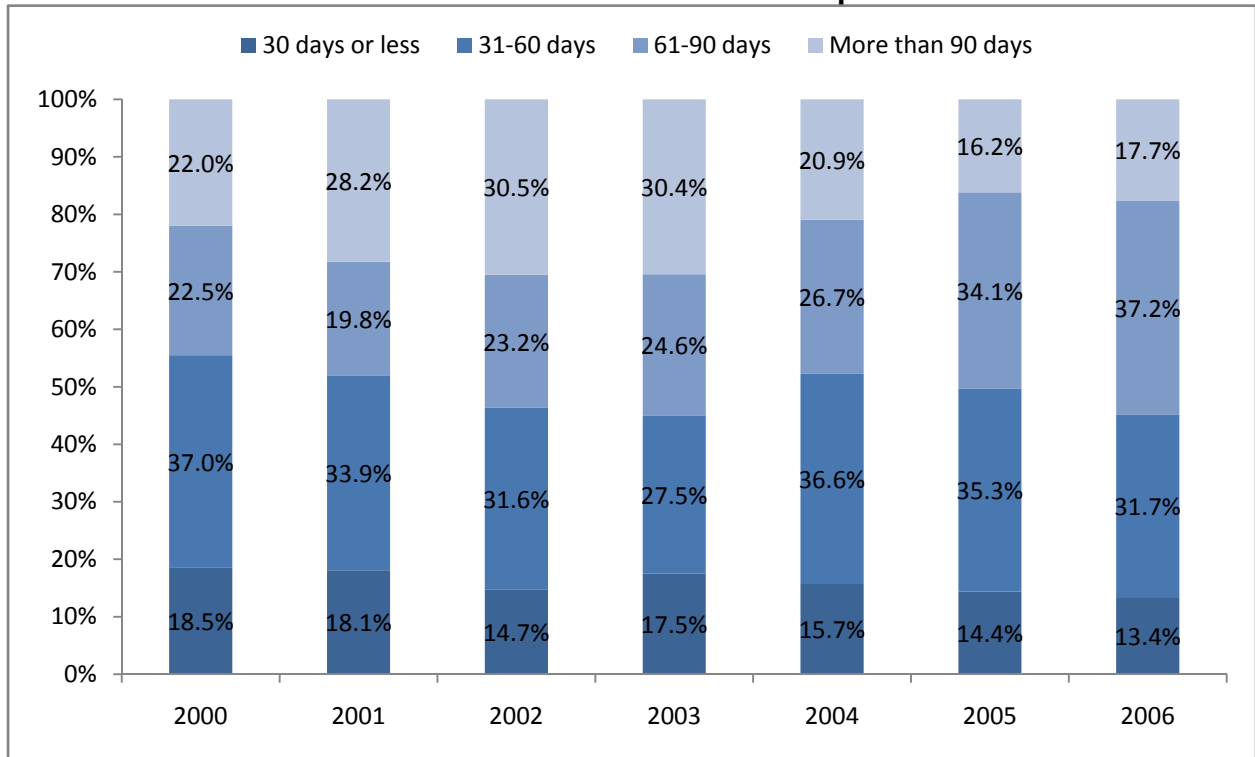
Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

Table A-6
Time to Fill Vacant Positions at Hospitals

	2000 (N=173)	2001 (N=177)	2002 (N=177)	2003 (N=171)	2004 (N=172)	2005 (N=167)	2006 (N=164)
30 days or less	18.5%	18.1%	14.7%	17.5%	15.7%	14.4%	13.4%
31-60 days	37.0%	33.9%	31.6%	27.5%	36.6%	35.3%	31.7%
61-90 days	22.5%	19.8%	23.2%	24.6%	26.7%	34.1%	37.2%
More than 90 days	22.0%	28.2%	30.5%	30.4%	20.9%	16.2%	17.7%

Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

Figure A-1:
Time to Fill Vacant Positions at Hospitals



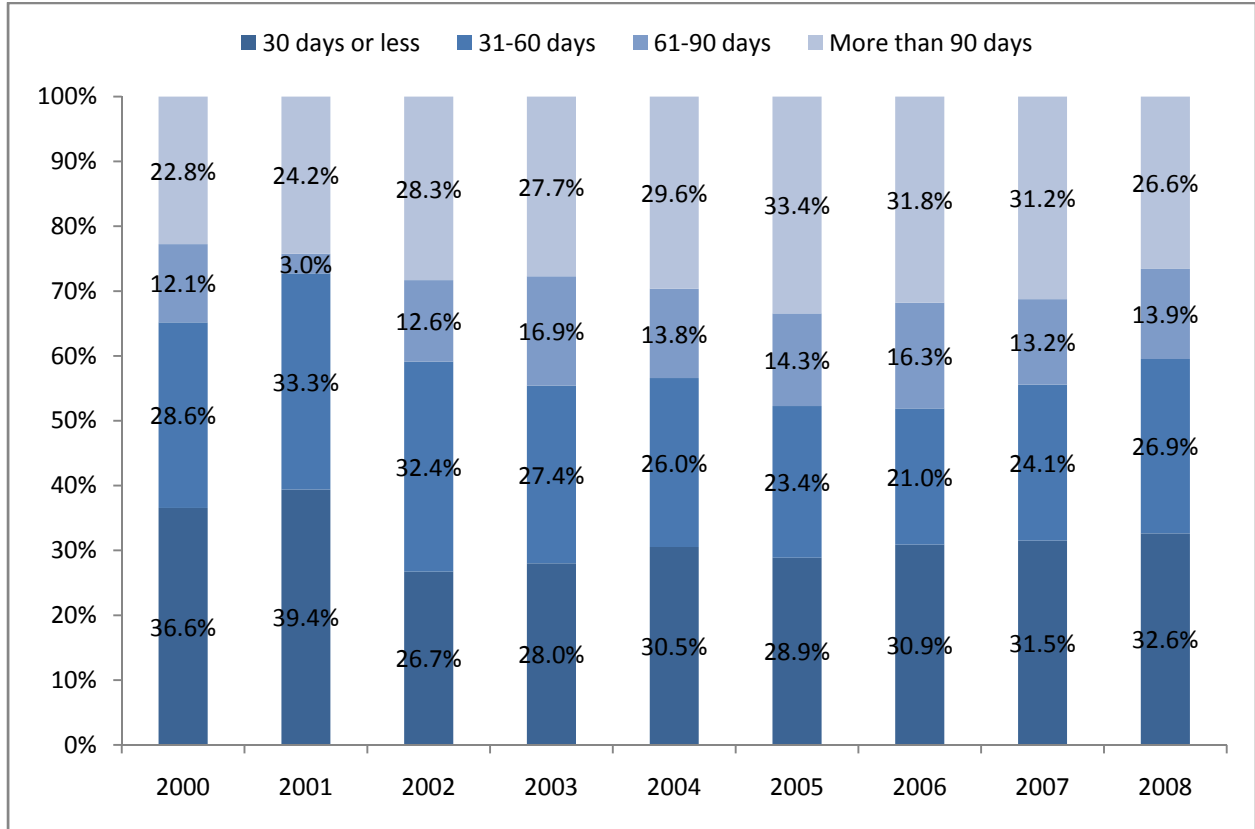
Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

Table A-7
Time to Fill Vacant Positions at Nursing Homes

	2000 (N=290)	2001 (N=33)	2002 (N=318)	2003 (N=332)	2004 (N=334)	2005 (N=329)	2006 (N=343)	2007 (N=349)	2008 (N=331)
30 days or less	36.6%	39.4%	26.7%	28.0%	30.5%	28.9%	30.9%	31.5%	32.6%
31-60 days	28.6%	33.3%	32.4%	27.4%	26.0%	23.4%	21.0%	24.1%	26.9%
61-90 days	12.1%	3.0%	12.6%	16.9%	13.8%	14.3%	16.3%	13.2%	13.9%
More than 90 days	22.8%	24.2%	28.3%	27.7%	29.6%	33.4%	31.8%	31.2%	26.6%

Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

Figure A-2
Time to Fill Vacant Positions at Nursing Homes



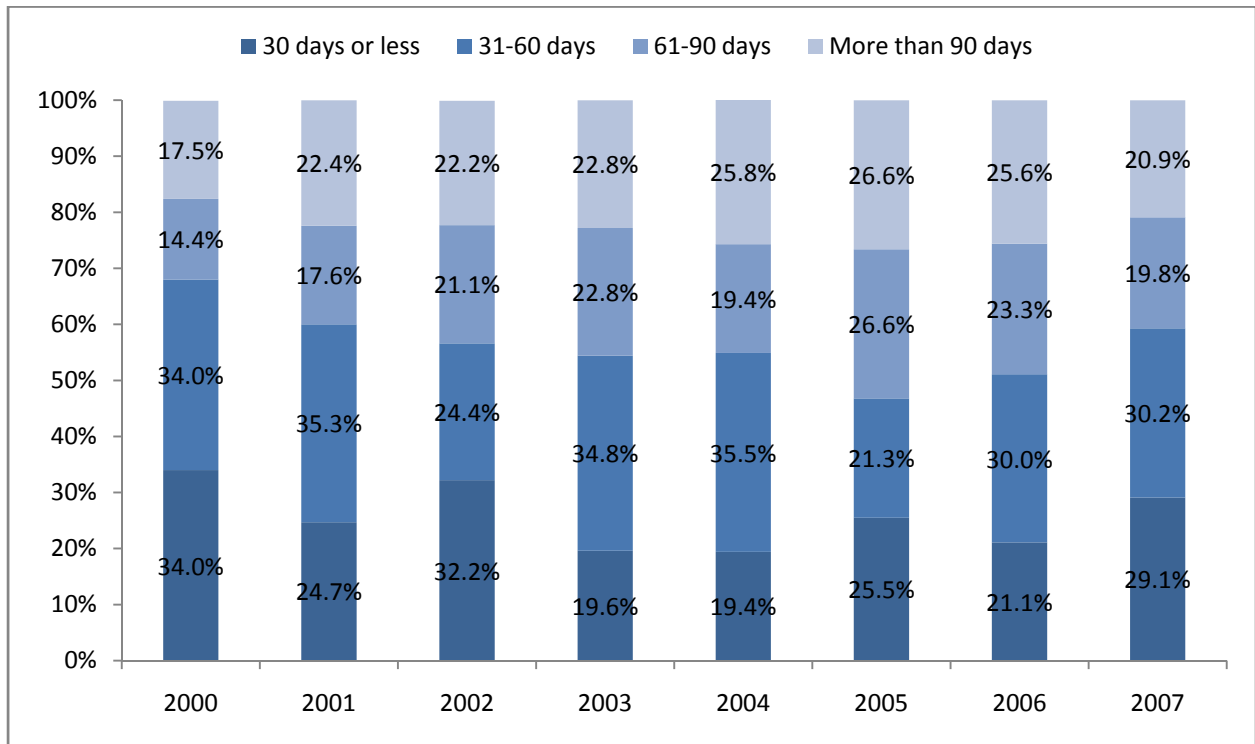
Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

Table A-8
Time to Fill Vacant Positions at Home Health Agencies

	2000 (n=97)	2001 (N=85)	2002 (N=90)	2003 (N=92)	2004 (N=93)	2005 (N=94)	2006 (N=90)	2007 (N=86)
30 days or less	34.0%	24.7%	32.2%	19.6%	19.4%	25.5%	21.1%	29.1%
31-60 days	34.0%	35.3%	24.4%	34.8%	35.5%	21.3%	30.0%	30.2%
61-90 days	14.4%	17.6%	21.1%	22.8%	19.4%	26.6%	23.3%	19.8%
More than 90 days	17.5%	22.4%	22.2%	22.8%	25.8%	26.6%	25.6%	20.9%

Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

Figure A-3
Time to Fill Vacant Positions at Home Health Agencies



Source: Georgia Department of Community Health, raw data from the Annual Hospital Questionnaire, Annual Nursing Home Questionnaire, and Annual Home Health Survey.

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