

HEALTH CARE WORKFORCE POLICY ADVISORY COMMITTEE
GEORGIA DEPARTMENT OF COMMUNITY HEALTH



FISCAL YEAR 2003 ANNUAL REPORT

*This Report considers the condition of the non-physician health care workforce.
Issues confronting the Physician workforce are addressed by the Georgia Board for Physician Workforce*

AUGUST 2003

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August 2003

Governor Sonny Perdue
Lt. Governor Mark Taylor
Speaker Terry Coleman
Members, General Assembly of Georgia
Members, Board of Community Health
Commissioner Tim Burgess
Policy Makers and Interested Parties

Ladies and Gentlemen:

On behalf of the Health Care Workforce Policy Advisory Committee, I am pleased to present our FY 2003 Annual Report for your review and consideration. Our committee was convened and charged by the Board and Commissioner of Community Health in July 2001, following the enactment of legislation creating the group. Since that time, we have sought to understand the many factors giving rise to the state's non-physician health care workforce shortages and to implement cost-effective programs and policies to address current and future problems. While Georgia is also experiencing a continuing and growing shortage of primary care and other specialty physicians, these shortages are being addressed by the Georgia Board for Physician Workforce

Georgia, like much of the nation, has a current and serious shortage of nursing, allied health and behavioral health professionals. However, as our annual report details, we have some reason for cautious optimism. For the first time in 10 years, our nursing schools are seeing sustained and significant increases in qualified applicants and enrollment. Similar kinds of increases are occurring in allied health programs. Our dental and pharmacy educational programs are filled to capacity with talented students from varying backgrounds throughout Georgia. We have established an incredible network of high-tech and high-touch recruitment channels to encourage young people and mid-career adults to enter health careers. Georgia's health care providers and professionals have worked side-by-side to develop innovative techniques and best practice strategies to improve the work environment and promote retention. Using a range of private and public funds, scholarships and service cancelable loans are now available for persons seeking educational opportunities ranging from entry-level health vocations all the way to doctoral level faculty placement. Our newly initiated survey collection and data efforts have given Georgia much improved insight and understanding of the make-up and distribution of the workforce, as well as an ability to evaluate the impact of policies and programmatic interventions. In times of limited resources, this type of analysis is critical to determine the most successful cost-effective strategies to address workforce supply and demand.

Even with the tremendous progress that Georgia has made, projections regarding workforce needs and labor forecasts paint a dim picture. By 2010, our state will need over 140,000 new and replacement health care workers. Registered nurses account for the lion's share of that projected need—nearly 30,000 new and replacement registered nurses will be needed by 2010. Considering that the state presently has some 90,000 registered nurses, the challenge is daunting. Similar statistics exist for other critical professions. An additional 3,700 pharmacists and 1,300 dentists will be needed by the end of the decade. The projected increases in demand for allied health and behavioral health professions will radically outpace our education system's present capacity. The demand for health care workers is directly tied to Georgia's growing and aging population. The failure to meet the health care needs of our citizens will result in serious consequences for our state's economy and our future viability.

Progress has been made. But, it is important to understand that meeting the health care workforce needs through the coming decade requires us to be vigilant and focused. State policy makers, agency heads, community leaders, health care providers, insurers, educators, and professionals must continue to work together to sustain existing programs and develop new strategies that promote recruitment, education and retention in health careers. There is no silver bullet, no magic wand and no single answer to the complexities of the health care workforce and the service delivery system. Meeting these challenges requires our constant attention and cohesive action.

Our annual report represents a powerful statement about the progress that can be made if cooperation and partnership exist. The Health Care Workforce Policy Advisory Committee has been successful due to the individual and collective talents of our members and the organizations that they represent. We have responded to our charge and sought to meet the state's growing health care workforce needs. We appreciate the support you have provided to these efforts, and we look forward to continuing to work with you as we seek to strengthen and promote the health care workforce in Georgia.

Sincerely,

W. Douglas Skelton, MD
Chair

HEALTH CARE WORKFORCE POLICY ADVISORY COMMITTEE GEORGIA DEPARTMENT OF COMMUNITY HEALTH

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EXECUTIVE SUMMARY

The FY2003 Annual Report of the Health Care Workforce Policy Advisory Committee looks at the current condition of Georgia's health care workforce, projected demand for health care professionals through the remainder of this decade and initiatives underway to address the tremendous gap between supply and demand. The Committee, now completing its second full year of operation, has initiated a wide range of policy and program strategies focused on increasing the number of qualified health professionals, improving the environment in which they work and building Georgia's capacity to effectively monitor the workforce and project future supply and demand. Progress is being made, but the workforce shortages remain daunting.

Hospitals and long-term care providers continue to experience sizeable vacancies in nursing and allied health professionals. Private providers have seen some improved ability to fill positions in the past year, but they still report vacancy rates ranging from 10% to 15% for registered nursing positions. For public sector providers who have limited salary options, the vacancy rates are overwhelming—often exceeding 30% of budgeted positions. Even when providers are able to fill positions, they remain vacant for longer periods of time, with many jobs taking 90 or more days to fill.

The demand for health professionals is projected to grow by about 30% nationally. In Georgia, the growth is projected to be much higher—some 37%. The Georgia Department of Labor projects that the state will need more than 140,000 new and replacement health care professionals by 2010. This projection includes nearly 30,000 additional registered nurses, more than 12,000 long-term direct care staff, 9,000 licensed practical nurses, 3,700 pharmacists, and thousands of allied health and behavioral health professionals. The numbers are forbidding.

In response to recent sample surveys of Georgia licensees, more than 45% of dentists and 38% of pharmacists indicate they plan to retire within ten (10) years. Almost 45% of the registered nurses responding to the surveys expect to continue in their field less than ten years more. By 2020, the federal Health Resources and Services Administration projects Georgia will have a gap between nursing supply and demand of more than 30,000 full-time equivalent positions, one of the largest such shortages in the nation.

Georgia has already undertaken a broad array of strategies to remedy workforce shortages. In 2002, for the first time in more than ten years, nursing programs sustained substantial growth. Almost 11,700 students were enrolled in educational programs to become registered nurses. This enrollment is an impressive 30% increase over the 2001 enrollment and nearly a 50% increase over 2000 enrollment. Aggressive expansions of this sort are almost unheard of in post-secondary educational programs. Trends in graduation rates from other health care programs also show increasing production, although the limited number of programs means the overall numbers of graduates in fields like physical therapy, dentistry, pharmacy, psychology and social work remain small. The technical college system has made great strides in producing more qualified health care technicians and assistants over the past ten years. Again, though, faculty and physical plant limitations constrict more dramatic growth.

New student recruitment and financing strategies are making a real impact and helping to increase the interest of young people and, thus, applications to health sciences programs. Many efforts are also underway to encourage and support current professionals. The challenge of the health care work environment cannot be underestimated, so mentoring programs, best practice replication, career path models, and other human resource management

approaches are being developed and disseminated to protect against continued departures from the health care workforce.

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License renewal questionnaires and sample surveys are helping policymakers and professionals get a better understanding of the distribution and demographics of the current workforce. These tools are also helping professionals learn about perceptions and practice patterns that will promote better planning for future workforce needs. Efforts are also well underway to construct a consortium of data from state agencies involved in producing, regulating or monitoring the health care workforce. This data, combined with strong analysis and forecasting capabilities are the keys to understanding and addressing workforce shortages over the long-term. Other states and national entities have recognized Georgia as a leader in developing this essential kind of integrated data and evaluation system.

Education financing has proven its ability to attract and retain qualified professionals. Georgia's service cancelable loan program has helped thousands gain an education in health science fields. A recent evaluation of the program conducted on behalf of the Committee indicates that most

loan recipients have successfully practiced in the field so as to repay this state investment. Acknowledging this success and expanding this tool into new areas of need, Georgia has secured \$1.6 million in federal and philanthropic funding to support scholarship programs for nursing faculty. This program will help replenish the state's sagging nursing faculty over the next four years.

Education program expansion and innovation will be the most significant contributor in addressing the state's workforce shortage. Through the University System of Georgia's Intellectual Capital Partnership Program (ICAPP), more than 500 new nursing and allied health students will graduate by the end of the 2003-2004 school year. Managed expansions and innovative clinical rotations through the pharmacy and dental schools in the state are allowing a maximum number of students to be enrolled and graduated. Allied and behavioral health programs are exploring different strategies to attract more students and expand options. The Department of Technical and Adult Education is developing new career ladder programs and education sites to meet the increasing demand for front-line health care personnel and technical expertise.

Georgia is seeking to maximize, expand and innovate in every arena related to health careers and professions. The concerted efforts of many partners and communities should allow Georgia to successfully meet the state's burgeoning health care workforce demand. However, it is still too early to determine whether the last two years of measured progress can be sustained into the coming years. Failure to maintain ongoing efforts and to dedicate critically needed resources to develop and maintain needed health care professionals could be devastating—to the state's economic health and to the health and well being of its citizens and communities. There is clear promise and opportunity but these are pitted against looming barriers and potential pitfalls. As such, the condition of Georgia's health care workforce must be seen as guarded.

INTRODUCTION

In 2001, in response to a substantial crisis in nursing, dentistry, pharmacy, allied health and behavioral health, the Health Care Workforce Policy Advisory Committee was established by the Governor and General Assembly. Beginning operation that summer, the Committee was charged with monitoring and addressing issues of the ongoing supply, demand, distribution, mix and quality of non-physician, health care professions licensed or regulated by the state. Included in this charge was a mandate to recommend and carry out policy and programmatic actions to overcome problems in workforce capacity.

Since its inception, the Committee has engaged in an aggressive series of interventions on behalf of this workforce. Working with partners from the public and private sector, philanthropic community, health care providers and others, strategic measures have been taken to stem the tide of the looming shortages. Initiatives touch on all aspects of professional development and maintenance, focusing on education programming, student financing, improving the health care workplace, enhancing the recruitment pipeline and many others.

Analyzing data on the condition of the health care workforce, Georgia seems to have made progress in producing and accessing the health care professionals it needs. Early efforts to prime educational capacity for health care professionals seem to be paying off, with interest growing in health careers. Further, the resiliency and innovation of Georgia's health care facilities are showing positive results, as vacancy rates appear to be dropping and staffing levels stabilizing. These facts boast well of Georgia's response over the past 3 years. However, these gains are still young and may not prove to be lasting. The evidence regarding this shortage suggests fundamental and substantive roots that hold profound long-term and short-term implications. Though Georgia may have secured some early, positive returns in its struggle to stabilize this workforce, inevitable changes will pose many challenges in the future. The state

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must continue its efforts to build its capacity to support this workforce over the long term. Despite early gains identified in this report, other information indicates the potential immensity of this shortage, an ever increasing demand for health care services and the presence of compelling forces driving many professionals to leave the workforce. Collectively, these pressures put Georgia's demand for health care professionals at a level not seen in Georgia before. Leaders and stakeholder across the state must make long-term commitments to solve these problems.

The following pages look at the current condition of this workforce and highlight recent initiatives that address identified concerns with the production, retention and coordination of this workforce. Most of the data included in this report was developed by Georgia entities, looking specifically at the Georgia workforce. Thus, the accuracy and validity this data holds in depicting the condition of Georgia's workforce can be viewed with a certain level of confidence. Furthermore, the information looks evenly and thoroughly at the entire non-physician health care workforce. However, care should still be used in determining the implications of this data. Differences in collection methods, reporting cycles and definitions serve to make comparisons and analysis difficult. The materials in this report should be viewed as broad indicators of conditions, which have impact upon and describe the workforce. Nonetheless, this broad perspective is important and useful in identifying the extent of shortages and the current trends confronting Georgia's workforce.

CURRENT STATE OF THE STATE'S HEALTH CARE WORKFORCE

CURRENT EVIDENCE OF SHORTAGES IN GEORGIA

A number of areas must be considered when looking at potential shortages in the health care workforce. Staff vacancy rates as reported by health care facilities, the change in reported vacancy rates over time, overall staffing levels and the change in time reportedly required to fill vacancies represent some of these areas. Data concerning these issues clearly indicates Georgia is facing shortages in critical health care professions. Based on the materials reported here,

however, limited improvements have taken place, which could prove beneficial if they are maintained. Yet, shortages continue to confound health care providers and are increasing in certain sectors of the service system.

The shortages can be seen in *Exhibits 1A-1C*, and show vacancy rates continue to hover in the double digits. In the nursing home sector, both LPN and RN vacancy rates are running at just below 15%. These figures suggest substantial and ongoing distress in these service sectors. However, important progress is seen in the declines occurring in vacancy rates over the

past three years and the increasing staffing levels that appear to be developing in important areas. Reductions in vacancy rates are apparent in every sector and for every health care profession reported. While some of these drops were almost insignificant, in many instances they were substantial, which should provide some relief to the health care sector. Importantly, while vacancy rates are dropping, staffing levels are increasing or holding relatively steady. The fact that these declines in vacancy rates represent real improvements to the system is seen in these increasing or stabilizing staffing

EXHIBIT 1A: NURSING HOME STAFF VACANCY RATES, 2000-2002

Profession	2000			2001			2002			% Change Vacancy Rate 2000-2002**
	FTE*	Vacancies	Vacancy Rate	FTE*	Vacancies	Vacancy Rate	FTE*	Vacancies	Vacancy Rate	
RN	1,899	308	16.2%	1,928	310	16.1%	1,866	277	14.9%	-1.4%
LPN	5,131	791	15.4%	5,432	849	15.6%	5,568	800	14.4%	-1.1%
Nurse Aides	13,874	1,868	13.5%	14,210	1,620	11.4%	14,370	1,259	8.8%	-4.7%

* Reported in terms of full time equivalent (FTE) positions

** Changes in vacancy rates may not appear to add correctly due to rounding error

Source: Nursing Facility Survey Prepared by: The Georgia Department of Community Health, Division of Health Planning Vacancy rates reported as of June of any given year Data pulled on 7/24/03 N in 2000 = 392 nursing homes, N in 2001 = 404 nursing homes, N in 2002 = 389 nursing homes

EXHIBIT 1B: HOME HEALTH STAFF VACANCY RATES, 2000-2002

Profession	2000			2001			2002			% Change Vacancy Rate 2000-2002**
	FTE*	Vacancies	Vacancy Rate	FTE*	Vacancies	Vacancy Rate	FTE*	Vacancies	Vacancy Rate	
RN	1,377	161	11.7%	1,278	169	13.2%	1,089	127	11.6%	-0.1%
LPN	278	77	27.6%	243	18	7.4%	246	23	9.4%	-18.2%
Nurse Aides	800	103	12.8%	669	34	5.1%	538	34	6.2%	-6.6%

* Reported in terms of full time equivalent (FTE) positions

** Changes in vacancy rates may not appear to add correctly due to rounding error

Source: Home Health Agency Survey Prepared by: The Georgia Department of Community Health, Division of Health Planning Vacancy rates reported as of December on any given year Data pulled on 6/06/03 N in 2000 = 101 agencies, N in 2001 = 124 agencies, N in 2002 = 124 agencies

EXHIBIT 1C: HOSPITAL STAFF VACANCY RATES, 2000-2002

Profession	2000			2001			2002			% Change Vacancy Rate 2000-2002**
	FTE*	Vacancies	Vacancy Rate	FTE*	Vacancies	Vacancy Rate	FTE*	Vacancies	Vacancy Rate	
RN	26,929	3,462	12.9%	27,206	3,330	12.2%	26,486	2,760	10.4%	-2.4%
LPN	4,947	572	11.6%	5,306	488	9.2%	4,628	396	8.6%	-3.0%
Pharmacist	1,358	105	7.7%	1,196	116	9.7%	1,155	87	7.6%	-0.2%

* Reported in terms of full time equivalent (FTE) positions

** Changes in vacancy rates may not appear to add correctly due to rounding error

Source: Annual Hospital Questionnaire Prepared by: The Georgia Department of Community Health, Division of Health Planning Vacancy rates reported as of December of any given year Data pulled on 7/24/03 N = 197 hospitals in 2000, 185 in 2001 and 180 in 2002

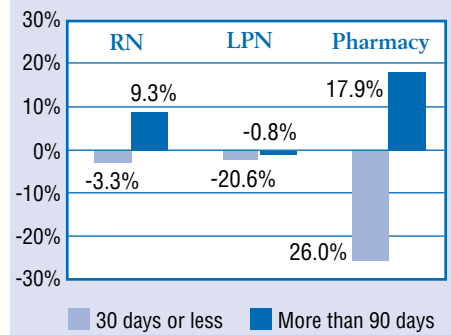
levels. If staffing levels had dropped along with declines in vacancy rates, it might suggest that reductions in vacancy rates were gained through closing of vacant/open positions. This would imply that facilities were reducing service levels instead of improving capacity. Fortunately, budgeted, full time equivalent (FTE) staffing for professions in the two largest components of the health care system, nursing homes and hospitals, appears to be rising. These numbers are already evident in nursing homes, although accompanied by a modest drop for RN staffing. Further, while hospitals currently report reductions in FTE staffing, this might be due to the fact that several hospitals in Georgia, including one of the largest, have yet to file their reports on staffing levels for 2002. Once all hospitals submit their information it is likely that reported staffing levels in hospitals will be close to or exceed that of previous years.

This combination of facts suggests some small steps towards progress have been achieved in restoring capacity within Georgia's providers. However, other evidence suggests that struggles continue and that some of the gains perceived here may be coming at the expense of other sectors of the health care system. **Exhibit 1B** shows staffing levels declining for home health agencies, at the same time vacancy rates are dropping. This fact undermines the impact of the improved vacancy rates, as these improving vacancy rates are possibly emerging due to the closing of unfilled positions. Even if this not true, the declining staffing levels indicate that overall service capacity is decreasing in this sector. While the scale of this sector is small, compared to the hospital and nursing home sectors, it

has a relevant role in the health care system as de-institutionalization and community based care models receive increased attention as a health care delivery model for the future. The reductions in RN staffing levels in nursing homes and pharmacists in hospitals also need continued scrutiny.

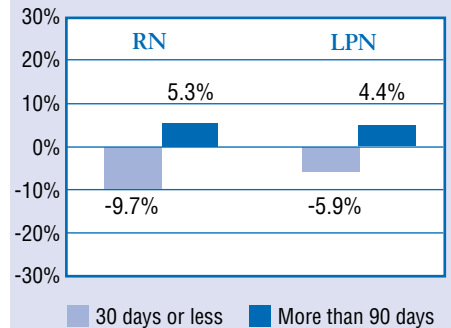
Other concerns with staffing trends in other components of the health care system temper the value of the improvements seen **Exhibits 1A-1C**. These concerns relate to continuing and growing difficulties with health professions staffing in state-operated health care facilities. As shown in **Exhibit 2**, vacancy rates reported for key professions working in state-operated systems run at rates substantially higher than those in similar settings overall. Hospitals, nursing homes, nor home health agencies had vacancy rates for reported health professionals that ran above 16% in the last two years. However, in select state run systems, vacancy rates have been hovering at or above 30%. These figures also indicate growing challenges when compared to figures reported in 2002 for these settings. In the report, *What's Ailing Georgia's Health Care Workforce*, the Department of Corrections and Division of Mental Health, Developmental Disabilities and Addictive Diseases reported vacancy rates for RNs at 28% and 38% and LPNs of 23% and 25% respectively. The Division of Public Health reported similar concerns for all nursing positions (RN, LPN and advanced practice), with a 19.1% vacancy rate for all nursing positions in 2001. Based on this information, state-run components of the health care system are facing greater challenges securing qualified professionals at a level

EXHIBIT 3A: REPORTED CHANGE IN TIME TO FILL POSITIONS IN HOSPITALS 2000-2002



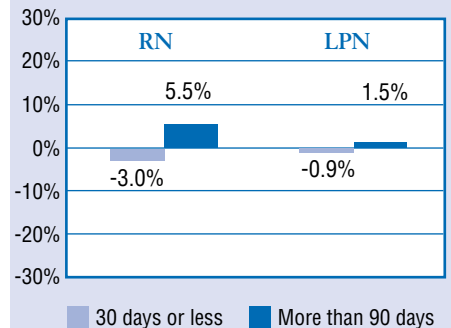
Source: Department of Community Health, Division of Health Planning, Home Health Agency Survey 2000 and 2002

EXHIBIT 3B: REPORTED CHANGE IN TIME TO FILL POSITIONS IN NURSING HOMES 2000-2002



Source: Department of Community Health, Division of Health Planning, Nursing Facility Survey 2000 and 2002

EXHIBIT 3C: REPORTED CHANGE IN TIME TO FILL POSITIONS IN HOME HEALTH 2000-2002



Source: Department of Community Health, Division of Health Planning, Home Health Agency Survey 2000 and 2002

EXHIBIT 2: VACANCY RATES AT STATE OPERATED HEALTH CARE FACILITIES/SERVICES

	RN	LPN	Pharmacy
Georgia Department of Correction*!	35.3%	22.2%	NA
Georgia Division of Mental Health!!**	39.0%**	29.3%**	17.7%
Georgia Division of Public Health!!!***	19.5%***		NA

* Figures as of end of May, 2003
 ** Includes only RNs and LPNs in the inpatient setting
 *** Includes all nursing positions (RN, LPN and advanced practice RNs) combined
 ! Figures provided by the Division of Health Services, Georgia Department of Corrections
 !! Figures provided by the Office of Human Resource Management, Department of Human Resources
 !!! Figures provided by the Division of Public Health, Department of Human Resources

disproportionate to the health care system as a whole. Given the important roles these systems play in the delivery of health care, the challenges they face are critically important to all Georgians.

Concerns also exist about attracting needed professionals, with facilities reporting increased difficulty in identifying and hiring the professionals they need (see *Exhibits 3A* through *3C*). When asked to report on the time typically required to fill RN, LPN, and pharmacy positions, facilities say that, generally, it is taking greater time to fill these positions. Fewer facilities from all three sectors (nursing homes, home health agencies and hospitals) reported that it took 30 days or less to fill RN positions, while more facilities reported it took greater than 90 days to hire appropriate personnel. A similar situation is reported for LPNs, although the numbers are not as striking, or as consistent. Perhaps most remarkably, 26% fewer hospitals reported that it currently took 30 days or less to fill pharmacy positions while 18% more indicated that it took more than 90 days, compared to 2000. The increase in hiring time suggests that fewer qualified individuals are available to meet growing demand for professionals, and confirms that Georgia's health care system continues to operate with a shortage of health care professionals.

DEVELOPING TRENDS AND GROWTH IN DEMAND

JOB GROWTH:

The facts reported on staffing in Georgia's facilities provide an important picture about the current state of affairs. However, effective planning is needed to ensure continuing improvements. Stakeholders must consider whether these increases will be sufficient to meet potential increases in demand in future years. Considering changes in demand for health care services over time, and a number of factors that typically influence need for health care services, suggests that Georgia will need to engage in substantial, aggressive intervention if it is to secure adequate numbers of needed professionals in future years. Population growth and aging, and the health of the state's and nation's

economy all impact the demand for health care services and professionals.

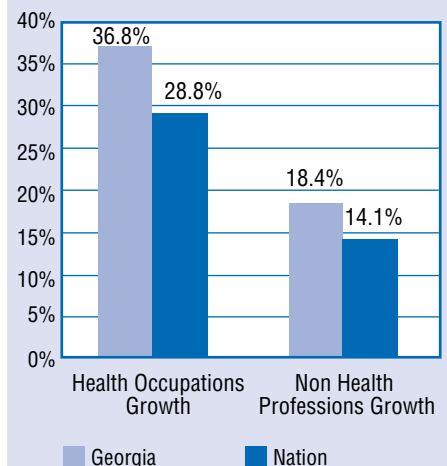
Perhaps the most important issue affecting the need for more health care professionals is the growth in population. In this regard, Georgia will undoubtedly experience substantial growth in demand for health care professionals. According to the US Census, Georgia's population continues to grow at an exceptional rate. The Census Bureau estimates that Georgia's population has grown by 373,824 since April 2000, and had 8,560,310 residents as of July 1, 2002. This represents a 4.6% increase over 2 years. If Georgia maintains this growth rate, it will experience population growth by 2010 comparable to that of the 1990s. New Georgians will require health care services, adding to the current demand for these services. Further, evidence suggests that anticipated increases in demand for health care services will exceed that which should be normally expected in proportion to population growth. A critical element that compounds the increases in demand brought on by population growth is the overall aging of the population. It is anticipated that Georgia's population will age along with the nation's, driven by the size of the baby boom generation. Evidence suggests that a strong relationship exists between age and the need for health care services. Thus, as Georgia ages, its population will need more health care services, likely well beyond the changes stemming from simple population growth alone.

Exhibit 4 shows the scale of the anticipated growth in demand for health care professionals that is, in part, emanating from these changes in Georgia and national demographics. As seen in this depiction, Georgia and the nation should anticipate explosive increases in demand for health care professionals. Not only is occupation growth high for health care professions, but demand for these professionals is growing at twice the rate of all non-health care professionals. In addition Georgia's growth in demand for health care professionals is higher than that of the nation. Clearly, forces are at work that will greatly increase Georgia's need for health care workers. While at a 37% growth rate these numbers seem large, they may prove to be low, as the economy plays a large role in

determining demand for jobs and access to certain services, including health care. Economic prosperity may result in increases in demand. Fiscal resources developed and distributed during strong economies will provide additional capacity to secure needed and elective health care services, resulting in additional demand for health care professionals. Because the figures cited in *Exhibit 4* and in other materials developed by the Georgia Department of Labor were developed during the recent/ongoing difficult economic times, these figures may prove to be modest.

Exhibit 5 reports projected growth in demand for most of the health care professions. This table was extracted from materials developed by the Georgia Department of Labor and includes every major category of health care provider. Several important observations emerge from this table. While health care professions are projected to grow at 37% between 2000 and 2010, the range of growth for individual professions runs as high as 80.6%. Only one profession, ophthalmic lab technicians, will experience less than 10% growth between 2000 and 2010. Certain positions, which already have a large number of professionals will see exceptional growth in new jobs, despite more modest growth rates. Registered nurses, which start with 55,000 FTE positions in 2000

EXHIBIT 4: COMPARATIVE GROWTH IN OCCUPATIONS 2000–2010



Source: Georgia Department of Labor, Office of Workforce Information Analysis and the Center of Health Workforce Studies, School of Public Health, University at Albany

**EXHIBIT 5: PROJECTED GROWTH IN GEORGIA HEALTH CARE OCCUPATIONS
STATEWIDE 2000–2010**

Occupation**	Employment Number		Change		Annual Growth	Annual Growth Rate	Annual Replacements	Total Annual Openings	Total Openings Due To Growth & Net Replacements
	2,000	2,010	Number	Percent					
Registered Nurses	55,060	73,190	18,130	32.9%	1,813	2.9%	1,111	2,920	29240
Nursing Aides, Orderlies, & Attendants	30,690	39,120	8,430	27.5%	843	2.5%	391	1,230	12340
Medical Assistants	8,630	15,580	6,950	80.6%	695	6.1%	229	920	9240
Physicians & Surgeons*	14,890	21,360	6,470	43.5%	647	3.7%	218	860	8650
Home Health Aides	7,200	12,430	5,230	72.7%	523	5.6%	92	620	6150
Licensed Practical & Licensed Nurses	17,160	21,730	4,570	26.6%	457	2.4%	440	900	8970
Medical & Health Services Managers	6,920	9,980	3,060	44.1%	306	3.7%	119	430	4250
Dental Assistants	6,520	9,410	2,890	44.4%	289	3.7%	117	410	4060
Medical Secretaries	8,530	11,350	2,820	33.2%	282	2.9%	145	430	4270
Personal & Home Care Aides	4,110	6,650	2,540	61.7%	254	4.9%	63	320	3170
Medical Records & Health Information Technicians	3,380	5,720	2,340	69.3%	234	5.4%	75	310	3090
Pharmacy Technicians	5,400	7,390	1,990	36.9%	199	3.2%	140	340	3390
Pharmacists	6,300	8,090	1,790	28.4%	179	2.5%	188	370	3670
Radiologic Technologists & Technicians	4,570	6,330	1,760	38.6%	176	3%	100	280	2760
Dental Hygienists	3,750	5,420	1,670	44.3%	167	3.8%	54	220	2210
Medical & Clinical Laboratory Technicians	4,380	5,930	1,550	35.4%	155	3.1%	103	260	2580
Emergency Medical Technicians & Paramedics	4,260	5,570	1,310	30.8%	131	2.7%	108	240	2390
Medical & Public Health Social Workers	3,900	5,200	1,300	33.1%	130	2.9%	43	170	1730
Physician Assistants	1,590	2,780	1,190	75.4%	119	5.7%	34	150	1530
Medical Transcriptionists	2,800	3,950	1,150	41.0%	115	3.5%	74	190	1890
Medical & Clinical Laboratory Technologists	3,990	5,070	1,080	27.1%	108	2.4%	94	200	2020
Respiratory Therapists	2,370	3,350	980	41.5%	98	3.5%	59	160	1570
Surgical Technologists	1,970	2,910	940	47.5%	94	4.0%	51	150	1450
Physical Therapists	3,120	4,030	910	28.9%	91	2.6%	78	170	1690
Substance Abuse & Behavioral Disorder Counselors	1,510	2,190	680	45.6%	68	3.8%	31	100	990
Speech-Language Pathologists	1,670	2,250	580	34.5%	58	3.0%	42	100	1000
Dentists	3,210	3,790	580	18.2%	58	1.7%	73	130	1310
Rehabilitation Counselors	1,130	1,640	510	45.1%	51	3.8%	23	70	740
Occupational Therapists	1,750	2,260	510	28.8%	51	2.6%	44	100	950
Cardiovascular Technologists & Technicians	1,050	1,530	480	46.1%	48	3.8%	23	70	710
Health Educators	1,350	1,820	470	34.9%	47	3.0%	20	70	670
Psychiatric Technicians	1,480	1,930	450	30.8%	45	2.7%	38	80	830
Opticians, Dispensing	1,990	2,390	400	20.0%	40	1.8%	37	80	770
Physical Therapist Assistants	1,130	1,520	390	35.0%	39	3.0%	33	70	720
Dietetic Technicians	1,780	2,160	380	21.4%	38	2.0%	46	80	840
Physical Therapist Aides	980	1,350	370	37.4%	37	3.3%	29	70	660
Diagnostic Medical Sonographers	860	1,190	330	38.2%	33	3.3%	19	50	520
Mental Health & Substance Abuse Social Workers	800	1,110	310	39.5%	31	3.3%	9	40	400
Respiratory Therapy Technicians	780	1,070	290	37.1%	29	3.2%	20	50	490
Medical Equipment Preparers	1,040	1,320	280	26.9%	28	2.4%	28	60	560
Dietitians & Nutritionists	1,190	1,410	220	18.2%	22	1.7%	32	50	540
Pharmacy Aides	1,050	1,260	210	19.7%	21	1.8%	28	50	490
Dental Laboratory Technicians	1,040	1,250	210	19.5%	21	1.9%	28	50	490
Optometrists	810	1,000	190	22.8%	19	2.1%	15	30	340
Mental Health Counselors	590	770	180	31.2%	18	2.7%	12	30	300
Radiation Therapists	440	610	170	38.9%	17	3.3%	9	30	260
Nuclear Medicine Technologists	500	670	170	35.2%	17	3.0%	11	30	280

EXHIBIT 5: PROJECTED GROWTH IN GEORGIA HEALTH CARE OCCUPATIONS STATEWIDE 2000–2010

(continued from previous page)

Occupation**	Employment Number		Change		Annual Growth	Annual Growth Rate	Annual Replacements	Total Annual Openings	Total Openings Due To Growth & Net Replacements
	2,000	2,010	Number	Percent					
Occupational Health & Safety Specialists & Technicians	630	790	160	24.9%	16	2.3%	16	30	320
Recreational Therapists	650	810	160	24.3%	16	2.2%	16	30	320
Clinical, Counseling, & School Psychologists	940	1,100	160	16.8%	16	1.6%	22	40	380
Audiologists	280	430	150	53.2%	15	4.4%	7	20	220
Occupational Therapist Assistants	370	510	140	37.2%	14	3.3%	11	30	250
Chiropractors	950	1,080	130	13.5%	13	1.3%	17	30	300
Psychiatric Aides	1,070	1,200	130	12.5%	13	1.2%	14	30	270
Marriage and Family Therapists	180	300	120	66.1%	12	5.2%	4	20	160
Massage Therapists	340	450	110	33.3%	11	2.8%	8	20	190
Podiatrists	430	530	100	23.3%	10	2.1%	8	20	180
Ophthalmic Laboratory Technicians	1,070	1,170	100	9.4%	10	0.9%	29	40	390
Occupational Therapist Aides	200	270	70	33.2%	7	3.0%	6	10	130
Medical Appliance Technicians	330	400	70	23.3%	7	1.9%	9	20	160
Forensic Science Technicians	270	320	50	21.1%	5	1.7%	10	20	150
Athletic Trainers	200	240	40	18.4%	4	1.8%	5	10	90
Orthotists and Prosthetists	80	100	20	22.6%	2	2.3%	2	0	40
Total, All Health Occupations	247,610	338,730	91,120	36.8%	9,112	3.2%	4,960	14,110	140720

*Combines all physician related Standard Occupational Codes
 **does not include catch-all Standard Occupational Codes ending in 99
 Source: Georgia Department of Labor, Office of Workforce Information Analysis

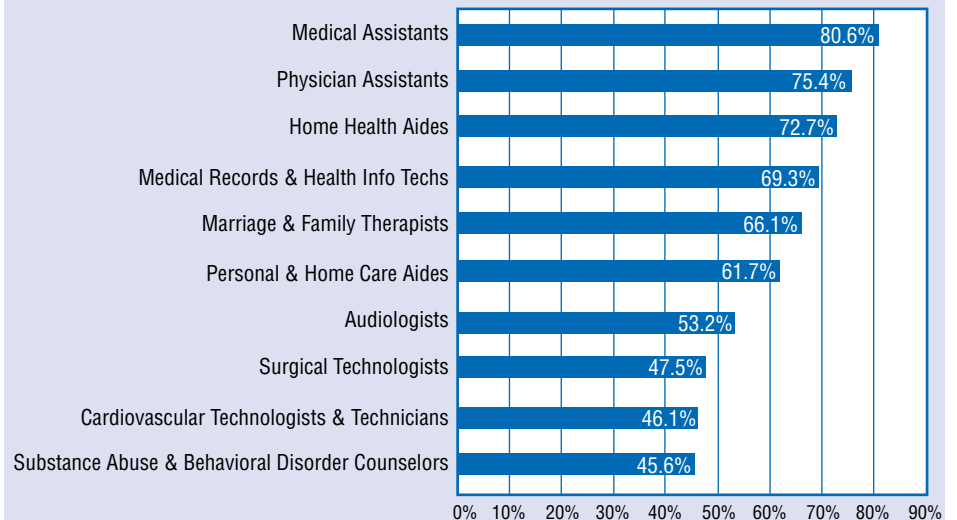
represents such a profession. The collective impact of this growth translates into over 91,000 new jobs for health care professionals by 2010.

The Georgia Department of Labor predicts that over the next decade, health care professions will represent six of the top 20 fastest growing professions. *Exhibit 6* examines the 10 fastest growing health care careers and underscores the extent of this growth, with seven of these 10 professions growing over 50% in new jobs over the decade. Not only will these professions grow rapidly, the size of this growth will be substantial. It should be noted, however, that some of the professions listed in *Exhibit 6* began the decade with modest numbers of practicing professionals. For these professions, large percentage growth may mean only modest growth in the number of needed professionals. Yet, some of the professions showing a remarkable rate of growth also show a large numeric growth in demand. *Exhibit 7* shows that certain individual professions will witness growth in jobs in the thousands. Medical assistants, home health aides, and personal and home care aides will not only grow rapidly,

but will experience a sharp increase in the numbers of new professionals needed to fill demand for these professionals. Other professions, which have lower rates of growth, appear in this exhibit. Nursing (RNs) will gain close to 20,000 new jobs. Despite a

more modest rate of growth in demand for RNs, the size of the current RN workforce translates into the largest numeric growth in jobs for any health care profession. Several other professions show growth in new jobs approaching 10,000. Looking at

EXHIBIT 6: FASTEST GROWING HEALTH CARE OCCUPATIONS IN GEORGIA: 2000–2010



Source: Georgia Department of Labor, Office of Workforce Information Analysis

the rate and size of growth shows the problem this expansion will have on Georgia's health care systems.

REPLACEMENT JOBS:

The need for replacement professionals will also be a critical factor in the next decade. Simply defined, demand for replacement professionals represents the need to place new professionals into existing positions that are vacated as existing professionals retire, become physically incapable of engaging in a health career, move into another career, etc. In the place of the professional vacating this position, a new professional will need to move into the position to fill the existing demand for that profession. Replacing incumbents allows the system to maintain its capacity and fulfill emerging demand.

Exhibit 8 shows that the total demand for professionals grows enormously when looking at the need to replace incumbents as well as new jobs. This view indicates that an additional 50,000 professionals will be needed by 2010, requiring Georgia to produce more than 140,000 health care professionals by 2010 to meet demand stemming from new jobs and replacement needs.

Viewing the pace and size of this overall growth in demand, additional concerns emerge with specific components of the workforce. *Exhibit 9* shows that those professions that comprise the field of nursing (RNs, LPNs and

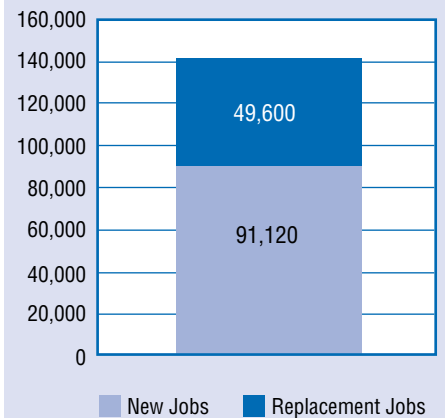
nurse aides and orderlies) will experience explosive growth in demand. Together, these professions will experience a growth in jobs of over 31,000 and demand for replacement professionals of just under 20,000. As such, Georgia will need to produce 50,000 additional nursing professionals to account for existing and emerging demand for these professionals by 2010.

Similar concerns exist for other professional fields. While these fields lack the overwhelming scale of growth seen in the nursing field, the level of emerging need, nonetheless, warrants attention. *Exhibit 10* highlights a limited set of other careers currently seen as critical in Georgia, such as those professions in the fields of pharmacy and dentistry. Just over 15,000 of these professionals will be required to fill new positions and those being vacated by existing professionals. This number represents a sizeable burden to the state. Georgia will need to secure almost 3,700 new pharmacists and over 1,300 new dentists to meet demand for their services by 2010. Given the length of the education required for these professionals, the costs of producing them and the limited capacity to produce them in Georgia (only one dentistry school and three pharmacy schools will operate in Georgia as of fall 2003), this may prove to be a great challenge for the state.

PROJECTED DECLINES IN WORKFORCE CAPACITY:

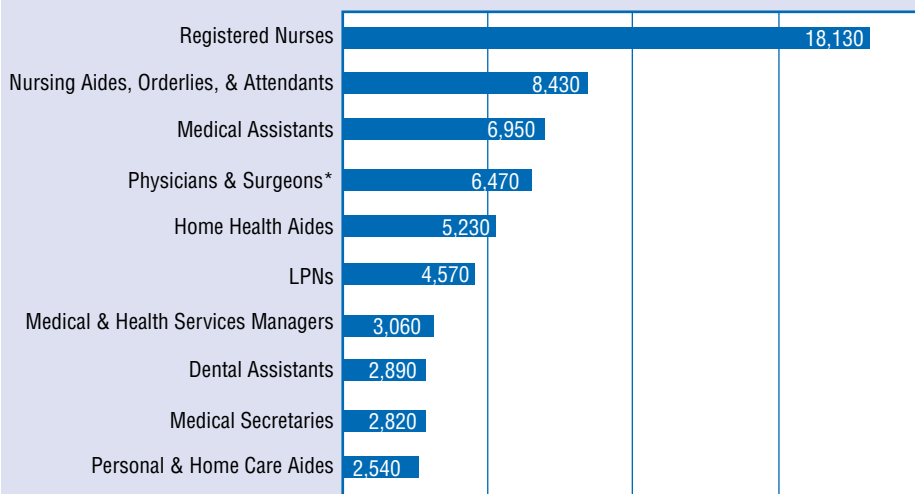
The Georgia Department of Labor information shows that the need to replace departing workers plays an important role in determining Georgia's workforce capacity. Driving the replacement numbers is an assumption that a certain percentage of the various professionals will depart the workforce as they age and/or retire from their professions. Data collected through sample surveys developed by the Health Care Workforce Policy Advisory Committee and the Medical College of Georgia seem to corroborate information from the Georgia

EXHIBIT 8: NUMBER OF NEW HEALTH CARE WORKERS NEEDED BY 2010



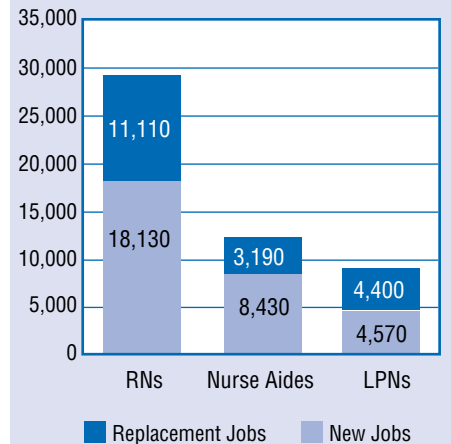
Source: Georgia Department of Labor, Office of Workforce Information Analysis

EXHIBIT 7: LARGEST PROJECTED GROWTH IN HEALTH CARE PROFESSIONS IN GEORGIA: 2000-2010



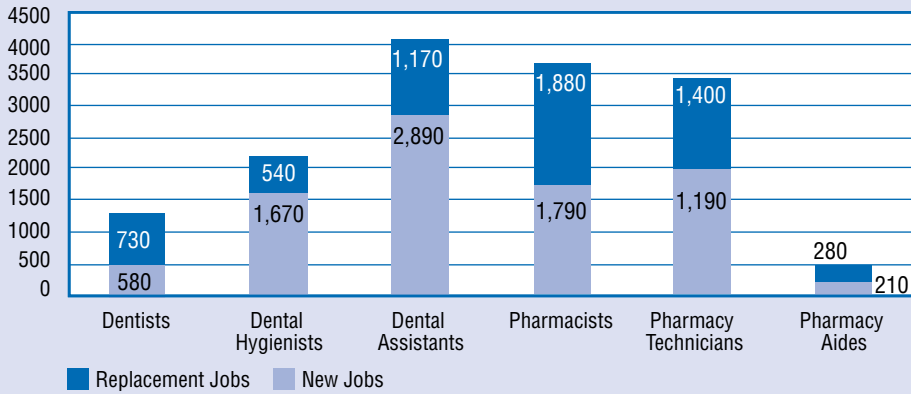
Source: Georgia Department of Labor, Office of Workforce Information Analysis

EXHIBIT 9: PROJECTED JOB GROWTH IN SELECT PROFESSIONALS 2000-2010



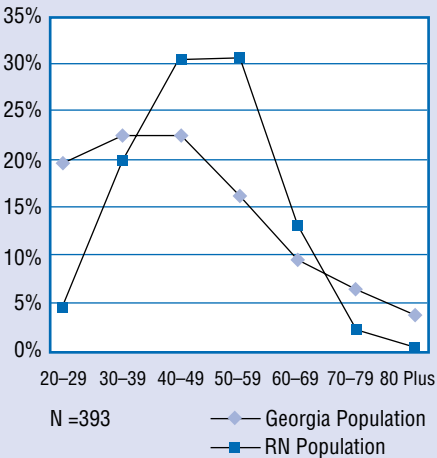
Source: Georgia Department of Labor, Office of Workforce Information Analysis

EXHIBIT 10: PROJECTED JOB GROWTH IN SELECT PROFESSIONS



Source: Georgia Department of Labor, Office of Workforce Information Analysis

EXHIBIT 11: AGE COMPOSITION: RESPONDENTS TO GEORGIA'S SURVEY OF RNS VS. GENERAL POPULATION



Source: Health Care Workforce Policy Advisory Committee Survey of Registered Nurses

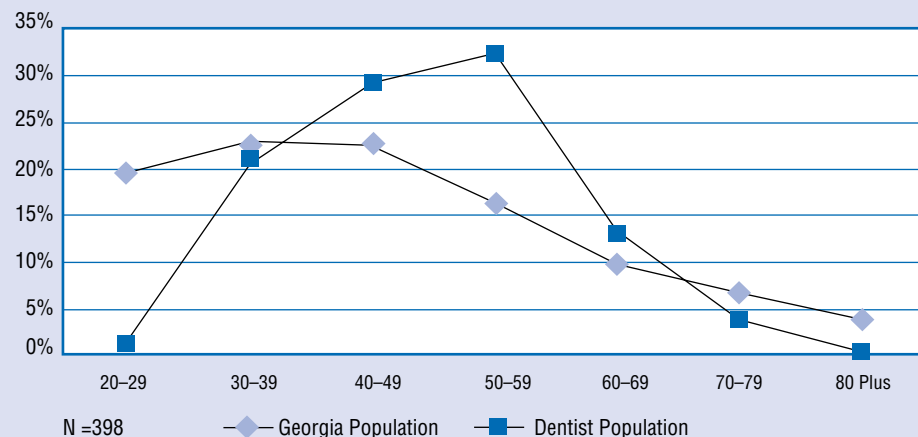
Department of Labor showing a substantial level of retirements and aging of nurses, pharmacists and dentists in Georgia.

Despite differences in many demographics, RNs, dentists and pharmacists responding to the survey are far older than the rest of the population.

Exhibits 11, 12 and 13 show the age of these professionals, based on responses to surveys of these professionals conducted during the winter and spring of 2003. All three professions have a median age in the late forties, with RNs and pharmacists reporting a median age of 48 and dentists of 49. This compares to a median age of nearly 34 for the general population according to the 2000 census.

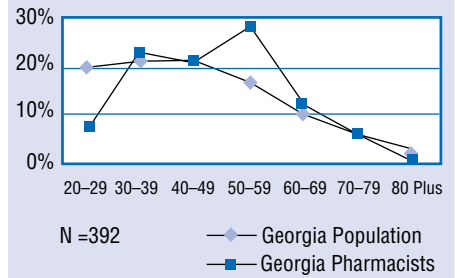
The information in *Exhibits 11-13* provide graphic proof of the advanced age of these professionals, with the majority of professionals in all three

EXHIBIT 12: AGE COMPOSITION: RESPONDENTS TO GEORGIA'S SURVEY OF DENTIST VS. GEORGIA POPULATION



Source: Health Care Workforce Policy Advisory Committee Survey of Georgia's Licensed Dentists

EXHIBIT 13: AGE COMPOSITION: RESPONDENTS TO GEORGIA'S SURVEY OF PHARMACISTS VS GEORGIA POPULATION



Source: Health Care Workforce Policy Advisory Committee Survey of Georgia's Licensed Pharmacists

professions being between 50 and 60 years old.

Two important factors are implied by this data. Most relevant to all three professions is pending retirements. With the bulk of professionals concentrated in the older age brackets, a large spike in retirements can be anticipated.

According to responses on questions regarding retirement plans for these professionals, Georgia should anticipate a marked drop in its workforce in the near future unless corrective action is taken. As seen in *Exhibits 14-16*, the next few years will see a marked increase in retirements. According to the responses to questions concerning retirement, 66.7% of dentists indicated that they will retire within 15 years and 40% of pharmacists in 10 years. Additionally, nearly 45% of RNs stated that they will discontinue nursing practice in the next 10 years.

The link between age and retirement is readily apparent, but another factor may reduce the capacity of this workforce, without considering pending retirements. As professionals age their ability and willingness to meet some of the physical and psychological demands of their jobs may decline. This is particularly true of nursing, which often requires substantial physical efforts and emotional strains on daily rounds. Thus, some individuals may reduce their hours, seek work in less demanding professions or retire from work altogether. These figures may have been captured in the numbers reported above, but the end result is nearly identical to retirement because a real loss of capacity in the workforce occurs. While the professionals may still

remain in the overall workforce, the shorter hours and diminished duties have an impact on people who need health care.

BALANCING SUPPLY AND DEMAND:

The overall intention of Georgia's efforts should be to balance the demand for health care professionals with their supply, both today and in

EXHIBIT 14: GEORGIA DENTISTS EXPRESSED PLANS TO RETIRE

Years	Percent Dentists
0	2.1%
1-5	16.4%
6-10	27.1%
11-15	21.1%
16-20	16.8%
21-25	10.0%
26-30	5.4%
30+	1.1%

N = 280 dentists responding
Source: Health Care Workforce Policy Advisory Committee Survey of Georgia's Licensed Dentists

EXHIBIT 15: GEORGIA PHARMACISTS EXPRESSED PLANS TO RETIRE

Years	Percent Pharmacists
0	0.6%
1-5	12.1%
6-10	25.3%
11-15	17.1%
16-20	19.3%
21-25	10.5%
26-30	9.1%
30+	6.1%

N = 363 Source: Health Care Workforce Policy Advisory Committee Survey of Georgia's Licensed Pharmacists

EXHIBIT 16: ANTICIPATED CONTINUATION IN NURSING

Currently Looking for New Career	1.8%
Less than 5 Years	14.4%
5 to 10 Years	28.2%
11 to 15 years	16.2%
More Than 15 Years	29.4%
Not Sure	9.9%

N = 333 Source: Health Care Workforce Policy Advisory Committee Survey of Registered Nurses

future years. Figures released by the Health Resources and Services Administration of the RN workforce in Georgia show the true impact the growth in demand for professionals will have. According to information they reported in July 2002 (shown in *Exhibit 17*) Georgia was already experiencing a shortage in RNs in FY 2000, with demand for RNs slightly exceeding the current supply of full time equivalent RNs. Unless substantive action is taken quickly, this shortage in RNs is expected to grow remarkably in the next 20 years. While Georgia was experiencing a modest 7% shortage, this is projected to grow to over 40% by 2020. Equally significant, reflective of the demographics of Georgia's RN workforce, the overall supply of RNs is projected to begin declining around 2010. Even though Georgia is aggressively addressing the nursing shortage, failure to act sufficiently may have catastrophic consequences. The stark situation in nursing has parallels in other professions, all of which could play a harmful role with Georgia's health care system.

CHANGES IN EDUCATIONAL SYSTEM PRODUCTIVITY

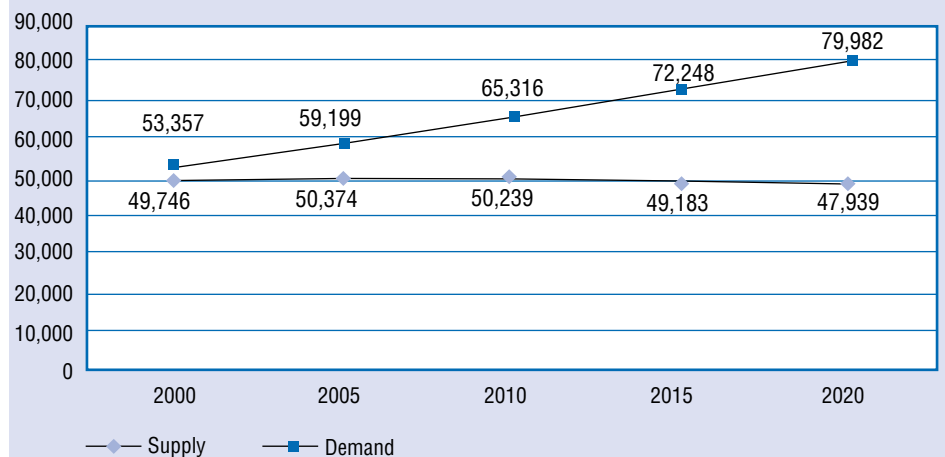
When considering balancing supply with demand for health care professionals, Georgia must ensure that the post-secondary education systems in the state enroll students in, and produce graduates from health sciences programs in sufficient

numbers to meet emerging demands. Accordingly, in FY 2003, considerable resources were devoted to expanding Georgia's post-secondary educational capacity. This investment is showing positive results, and provides encouraging signs of better times ahead. However, care must be taken not to over-interpret these results. These improvements are recent and may not be long lived. Further, the scale and scope of anticipated growth in demand for health care professionals will require unprecedented changes in educational outputs and capacity. Georgia appears to only now be recovering levels of productivity needed to maintain the existing workforce and meet current demand. This is particularly true in nursing. To meet emerging needs, Georgia must build its educational capacity even further.

INCREASED ENROLLMENT IN NURSING PROGRAMS:

One of the biggest professional shortages has been in the registered nursing workforce. RNs are key to the quality and capacity of the health care system. The roles filled by RNs run the entire gamut of the health care system both in where they work and the duties they perform. They represent sizeable portions of the professionals at work in hospitals, nursing homes, home health agencies, doctors' offices, public health clinics, and mental health hospitals. They play roles in all aspects of patient care, ranging from diagnosis and treatment to patient education and fill an

EXHIBIT 17: PROJECTED SUPPLY AND DEMAND FOR FULL TIME EQUIVALENT RNS IN GEORGIA



Source: Health Resources and Services Administration, Projected Supply, Demand and Shortages of Registered Nurses: 2000-2020

indispensable role in health care delivery. The RN workforce is also the single largest health care profession, with roughly 90,000 RNs licensed to practice in Georgia (LPNs are the next largest group with under 30,000 active licenses). The shortages in this workforce therefore, have a profound and negative impact on the operations of the entire health care system and all those operating within it, professionals and consumers alike.

Declining interest in nursing careers has contributed to the shortage of RNs. Fortunately, after years of steady decline in enrollment in nursing programs, Georgia is now increasing enrollment in its public sector nursing programs. In **Exhibit 18**, the trend in enrollment in University System of Georgia nursing programs is shown across the past decade. Enrollment in university system nursing programs has

declined steadily in the eight years after 1993. This decline of 7,000 students represents a near 50% drop in enrollment. Fortunately, enrollment since 2000 has increased steadily. From its low point in 2000, enrollment in University System of Georgia nursing programs has increased by nearly 4,000 students. This represents a 50% increase in just two years, returning the state to levels experienced in the mid 1990s. This recent rise is attributable to forces at work within both associate and baccalaureate degree programs. The decline in enrollment in associate degree programs has been halted. The drop in enrollment in these programs, as seen in exhibit 18, accounted almost entirely for the marked declines in cumulative enrollments throughout the 1990s in all entry level nursing programs. Enrollment in associate degree programs is

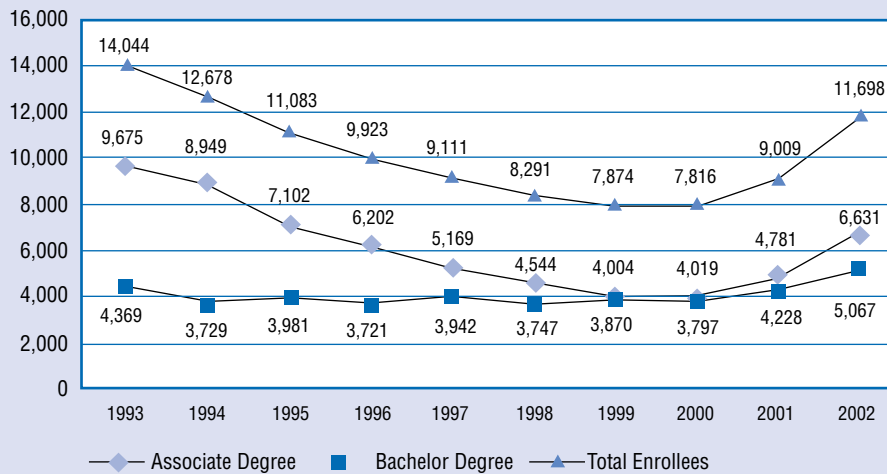
now improving. Further, for the first time in history, baccalaureate level enrollment exceeds 5,000. Enrollment in baccalaureate level programs has largely held constant across the last decade, despite growing interest in this education track. For the first time enrollment in baccalaureate programs has increased in two consecutive years. University system nursing programs also reported a 26% increase in applications to programs (including advanced training) between 2000 and 2002, which suggests that this trend should continue.

This positive trend appears to extend to Georgia's private nursing education programs. **Exhibit 19** shows recent trends in two important private nursing programs. These programs have experienced increases in enrollment since 2001 following an overall drop in enrollment between 1999–2001. Care must be taken in interpreting the information reported in these figures given the limited period covered by this data and the small number of programs it covers. However, the information reported here is from two very recognized and established programs that have historically contributed to Georgia's RN workforce, and does suggest increased enrollment is universal throughout nursing education programs.

CHANGING GRADUATION RATES:

Exhibits 19 and **20**, reflect the declines in graduation rates, with Georgia witnessing a drop of 16% in private programs over the past 4 years and 42% in university system programs over the past decade. However, Georgia may be turning a corner in nursing education. Interest and enrollment in nursing programs is increasing. Should these students, and potential students, ultimately graduate with a nursing degree and pass licensure examination to practice as an RN (for which a degree from an RN program is required), they should fill some of Georgia's demand for RNs. As low enrollment rates limit the number of graduates, increasing enrollment should yield higher graduate numbers in the future. This suggests that nursing graduates will increase in the near future.

EXHIBIT 18: ENROLLMENT IN UNIVERSITY SYSTEM NURSING PROGRAMS 1993 TO 2002



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

EXHIBIT 19: ENROLLMENT AND GRADUATE NUMBERS FROM SELECT PRIVATE NURSING PROGRAMS

	1999–2000	2000–2001	2001–2002	2002–2003
Emory Enrollees*	127	132	129	145
Emory Graduates	58	61	66	58
Mercer Enrollees*	337	311	313	322
Mercer Graduates	103	84	70	78
Total Enrollees	464	443	442	467
Total Graduates	161	145	136	136

*Represents total number of nursing students enrolled in school
 Source: Emory University School of Nursing, Georgia Baptist College of Nursing of Mercer University
 Students enrolled or graduating from RN-BSN, RN MSN, MSN and doctoral programs are not included in this count

EXHIBIT 20: TEN YEAR TREND IN GRADUATES FROM HEALTH PROFESSIONS PROGRAMS IN UNIVERSITY SYSTEM SCHOOLS!!

Professions	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	% Change 1993–2002
Physical Therapy	73	85	114	77	118	104	139	104	115	120	64.4%
Occupational Therapy	37	39	41	40	43	44	66	42	67	38	2.7%
Speech Language Pathology	40	53	70	129	138	137	180	134	130	128	220.0%
Dentistry*	41	45	42	56	51	53	52	48	61	45	9.8%
Dental Hygiene	149	133	149	152	186	181	165	143	145	163	9.4%
Health and Medical Assist	30	29	30	95	185	145	125	111	80	58	93.3%
Nursing***	2135	2389	2511	2238	2191	1850	1661	1308	1320	1240	-41.9%
Pharmacy**	152	159	148	181	144	132	98	123	62!	99	-34.9%
Psychology	53	43	35	61	57	70	64	56	48	61	15.1%
Social Work****	180	202	252	230	262	276	234	269	420	360	100.0%

* Excludes M.S. and Ph.D. Dentists

** Includes Pharmacy Doctorate First Professional A and B

*** Includes Associate, Career Associate and Baccalaureate Graduates for Registered Nursing

**** Includes only Masters and Baccalaureate Graduates

! After 2000, reflects new entry requirement of PharmD for the profession

!! Certain discrepancies may be found in comparing similar data provided in earlier reports—this is due to clarifications made in USG reporting provided to Committee staff for use in this report

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

EXHIBIT 21: TEN YEAR TREND IN GRADUATES FROM HEALTH PROFESSIONS PROGRAMS IN TECHNICAL SCHOOL SYSTEM*

Professions	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	% Change 1993–2002
CNA/PCA	0	76	337	635	830	842	467	513	659	1,237	NA
Dental Assisting	60	70	93	77	85	100	64	75	103	114	90.0%
Dental Hygiene	12	0	0	0	15	35	39	50	68	69	475.0%
EMT/Paramedic	125	323	639	388	723	737	730	805	874	1,056	744.8%
LPN	1,117	1,175	1,181	1,141	1,066	1,070	908	919	853	880	-21.2%
Medical Assistant	291	342	415	355	366	341	459	430	451	422	45.0%
Medical Coding	0	0	1	22	16	42	52	72	150	200	NA
Medical Lab Technology	122	91	110	115	89	60	62	44	47	39	-68.0%
Nursing (RN)	17	35	27	22	29	34	28	33	28	26	52.9%
Occupational Therapy Assistant	0	0	0	0	0	0	16	37	20	36	NA
Pharmacy Assist/Tech	10	16	11	22	41	32	50	57	70	96	860.0%
Physical Therapy Assistant	30	47	46	47	52	51	37	45	26	26	-13.3%
Radiologic Technician	108	122	129	143	153	132	153	150	188	206	90.7%
Surgical Techs	105	114	117	139	140	158	160	162	176	196	86.7%

*Generally, only programs preparing individuals to enter into a field are included in this count

Source: Department of Technical and Adult Education, Division of Planning and Information Services

Exhibits 20 and 21, show further positive developments with other professions. According to data reported by the University System of Georgia and the Department of Technical and Adult Education, graduation levels for most programs are at higher levels than 10 years ago. Given the length of time covered by these charts, and the fluctuations in output from year to year, care

must be taken when analyzing this information. Some of these increases do not reflect overall trends in growth so much as brief, positive spikes in graduation levels, which may not be sustained over even short periods of time. However, although fluctuations do exist from year to year, they occur in the midst of an overall growth trend in graduate numbers.

As depicted in *Exhibit 20*, all major non-physician health care education programs offered in the university system have experienced an increase in graduate levels since 1993, with the exception of nursing and pharmacy programs. Further, the recent drops in pharmacy graduates should not necessarily be seen as long-term decreased capacity or output, because some of the recent drop in graduates can be

attributed to the conversion to the Pharm D. as the entry level degree for pharmacists in Georgia. In the coming years, output of pharmacists should return to historic levels. And as stated earlier, graduate levels from USG nursing programs should begin to increase in the near future as increases in students enrolling begin to impact graduation rates from these programs. Note should be given to social work, physical therapy and speech language

pathology, which witnessed double and triple digit percentage increases in graduation levels. Improved graduation levels are particularly important for social work, given the geographic maldistribution affecting the behavioral health workforce.

Substantial increases also took place within most health care programs in the technical school system as well. Many professions have enjoyed a triple

digit percentage growth, including dental hygienists, paramedics and pharmacy techs, and these increases indicate that Georgia is improving its capacity to produce these professionals. As in the university system, important exceptions did surface, including LPNs and medical lab technicians, but substantial progress has been made across a broad range of professions that should provide relief to Georgians in need of health care services.

The information on Georgia's education productivity suggests important, positive changes are taking place that bode well for the future. However, it is important not to overemphasize these recent improvements. Given the anticipated increases in demand for health care professionals discussed earlier, it is important to determine if the improvements provide sufficient numbers of new graduates in the coming years to meet the increased demand for health care professionals.

No mechanism is currently available to assess the levels of output required of our post-secondary education system to keep pace with future demand. However, comparing the changes in graduate levels with changes in the population offers a simple mechanism to suggest whether changes in output will be sufficient to meet emerging demand. Since the Georgia Department of Labor estimates also rely heavily on assessing impacts resulting from population changes, this method can be useful.

Exhibits 22 and 23 show the change in graduation rates of university system and technical system programs, in relation to the population. When viewing the changes in educational output in this light, the sufficiency of Georgia's post secondary educational output appears to be mixed. Certainly, important improvements are taking place, and several programs have seen substantial increases in numbers of graduates. However, viewed this way, certain professions, which have slightly increased their graduate numbers, or remained constant over the decade, have experienced real declines in the adequacy of their graduate numbers. This view also highlights the effects of reductions in outputs that certain programs have experienced over the decade and show reductions in these professions to be truly profound.

EXHIBIT 22: UNIVERSITY SYSTEM GRADUATIONS PER 100,000 POPULATION!!

Professions	Graduates per 100K Population			Percent Change 1992-2002
	1992	2000	2002	
Physical Therapy	1.0	1.3	1.4	37.3%
Occupational Therapy	0.5	0.5	0.4	-18.9%
Speech Language Pathology	0.4	1.6	1.5	321.1%
Dentistry*	0.6	0.6	0.5	-13.3%
Dental Hygiene	2.3	1.7	1.9	-17.0%
Health and Medical Assist	0.3	1.4	0.7	169.4%
Nursing ***	28.2	16.0	14.5	-48.7%
Pharmacy**	2.2	1.5!	1.2	-45.5%
Psychology	0.9	0.7	0.7	-18.4%
Social Work****	2.4	3.3	4.2	77.7%

* Excludes M.S. and Ph.D. Dentists

** Includes Pharmacy Doctorate, First Professional A and B

*** Includes Associate, Career Associate and Baccalaureate Graduates for Registered Nursing

**** Includes only Masters and Baccalaureate Graduates

! After 2000, reflects new entry requirement of PharmD for the profession

!! Certain discrepancies may be found in comparing similar data provided in earlier reports—this is due to clarifications made in USG reporting provided to Committee staff for use in this report
Source: Board of Regents, University System of Georgia, Office of Research and Policy Analysis
Population figures derived from Census estimates and decennial counts

EXHIBIT 23: TECHNICAL SCHOOL SYSTEM GRADUATIONS PER 100,000 POPULATION

Professions	Graduates per 100K Population			Percent Change 1992-2002
	1992	2000	2002	
CNA/PCA	0.0	6.3	14.5	NA
Dental Assisting	1.1	0.9	1.3	25.0%
Dental Hygiene	0.2	0.6	0.8	319.1%
EMT/Paramedic	1.6	9.8	12.3	694.1%
LPN	15.0	11.2	10.3	-31.7%
Medical Assistant	3.7	5.3	4.9	33.3%
Medical Coding	0.0	0.9	2.3	NA
Medical Lab Technology	1.3	0.5	0.5	-64.2%
Nursing (RN)	0.0	0.4	0.3	NA
Occupational Therapy Assistant	0.0	0.5	0.4	NA
Pharmacy Assist/Tech	0.0	0.7	1.1	NA
Physical Therapy Assistant	0.4	0.5	0.3	-17.9%
Radiologic Technician	1.3	1.8	2.4	89.1%
Surgical Techs	1.5	2.0	2.3	50.3%

Generally, only programs preparing individuals to enter into a field are included in this count
Source: Department of Technical and Adult Education, Division of Planning and Information Services
Population figures derived from Census estimates and decennial counts

Within the University System, reported in *Exhibit 22*, these three factors can be seen at work. Physical therapy, speech language pathology and social work programs all appear to have experienced real increases in graduate numbers, relative to population growth. However, occupational therapy, dentistry, dental hygiene and psychology, which showed modest improvements in graduate numbers are producing fewer graduates per population than they did in the early 1990s. Viewing changes in productivity this way also accents the real declines that have taken place in nursing, which has seen numbers of graduates per 100,000 population drop by nearly 50%.

Similar concerns can be seen in *Exhibit 23*, which shows growth within the technical school system. Perhaps mitigating declines in the university system, production of dental hygiene graduates has experienced a remarkable 320% growth. Similar explosive growth has also been seen for paramedics/EMTs and nurse aides. However, dental assistants, which appeared to experience robust growth in productivity, saw only modest growth. Finally, LPN and medical lab technician programs, which show big declines in graduate numbers are experiencing even larger declines in capacity when compared to population growth, with a 32% and a 64% drop in graduates per population respectively.

CRITICAL LIMITATIONS TO EDUCATION PROGRAM CAPACITY:

Implicit in this picture of Georgia's post-secondary education systems is the need to expand the number of graduates they produce. However, this may be difficult to achieve. Factors impeding this expansion include shortages of faculty in Georgia's post-secondary programs and the limited number of schools offering the needed training. These problems are currently seen to impact nursing, dentistry and pharmacy in particular. This fact is troubling, as these professions are anticipating considerable growth in demand while experiencing either limited or negative growth in graduates over recent years.

Evidence suggests that all health care professions face a shortage in qualified faculty. These shortages are already affecting program productivity and greater shortages are anticipated in the near future as faculty leave to pursue clinical practice or retire from the profession. Nursing, dentistry and pharmacy are simply the most problematic areas at present. There are many causes behind this shortage. First, current faculty are aging. According to materials developed by the Medical College of Georgia Dental Task Force, 52% of Medical College of Georgia dental faculty are over 50. Further, turnover is typical among dental faculty, as 33% of dental faculty across the country turns over every 5 years. In addition, there are not enough qualified people to fill faculty positions becoming vacant, as less than 1% of graduates from dental schools nationally indicate any intention of pursuing academic careers. Driving this low interest in academic dentistry are salary discrepancies between academic and clinical practice. In Georgia, only the base salary for full professors is competitive with the mean annual incomes of dentists in clinical practice. Faculty below the level of full professor are paid well below clinical practitioners, with the base salary for assistant professors being nearly \$20,000 below clinical salaries. Moreover, the income earned by clinical dentists represents an average, and many dentists in this sector earn exceptionally higher incomes than average.

Nursing programs have similar concerns. In a survey administered by the Southern Regional Education Board, 24 nursing programs reported problems with both vacant, budgeted faculty positions and new faculty positions. Of the 444 faculty positions budgeted for these programs for the FY 2002 academic year, 34 were vacant at the end of the school year, with 31 resignations or retirements known to be pending by the end of the 2004 academic year. These vacancies represent a potential faculty shortfall of 15%. Complicating this is the recent expansion of nursing programs, as these programs indicated 33 new full and part time positions were added to their programs. At the time SREB

released their information, it was unclear whether these new positions remained vacant. However, many of these positions may remain unfilled, with the added workload falling on existing faculty, thereby increasing the strain on these professionals. Nor is likely that sufficient help is coming, as the programs responding to the survey indicated only 10 students emerging from their programs "prepared to teach" nursing. As with dental faculty, the causes for the faculty shortages for nursing appear to be competition with the rewards, financial and otherwise, between academic and clinical nursing. For former faculty about whom current work settings nursing programs were aware, almost 35% were in clinical settings. Although the discrepancy between clinical and academic salaries was not reported, it is understood that pay in the clinical setting is greater.

Unfortunately, no specific information is available regarding faculty shortages for pharmacists. Anecdotal evidence suggests that it is very real and has the same roots as shortages affecting dental and nursing faculty. However, one limitation to pharmacy education stands out. For both pharmacy and dentistry, an extremely small number of programs exist to produce the graduates who can meet Georgia's needs. Medical College of Georgia is the only dental school in Georgia, and pharmacy students will have the option to attend only three schools in the 2004 academic year. The cost of building new programs is exceptional and it is unlikely that Georgia will add new programs for these professions in the immediate future. Thus, the state will have to grapple with limited numbers of pharmacists and dentists and fewer people than necessary in needed geographic areas as graduates emerge and practice near the locations where they studied.

IMPLICATIONS OF WORKFORCE SHORTAGES

The collective weight of this material suggests substantial challenges confront Georgia. Though certain improvements have occurred in important areas, they are often marginal, may be short-lived and may not be enough to stave the anticipated explosion in demand for health care professionals. These challenges, if not addressed, will have profound impacts on Georgia, its economy and those who call Georgia home.

Georgians feel the direct impact of inadequate staffing in the quality of care they receive in hospitals, nursing homes and community services. A growing body of evidence indicates that staffing has a profound impact on the outcomes of care. The findings of this research show a strong link between staffing levels and rates of serious complications such as pneumonia, upper gastrointestinal bleeding, shock, lung collapse, cardiac arrest and infection rates. There is also a link between staffing levels and less critical complications, such as bedsores. Staffing levels also impact the length of stay in health care facilities and, subsequently, the costs for care. The focus of much of this research has been on RNs, although impacts of LPN and CNA staffing, in both hospitals and nursing homes has also been reviewed. The implications of this work are profound and clear. Shortages in staffing, for health care professionals in general, will result in negative consequences for health care quality.

Another consequence to limited staffing is diversion from hospital emergency departments. Diversion results when hospital emergency rooms receive more patients seeking care than staffing levels permit. In order to ensure that those in need of emergency services receive timely and safe care, hospitals working above capacity will send people en-route for health care services to another facility. According to a survey conducted for the American Hospital Association, "six out of ten hospitals felt they (were) filled to capacity and (could) not accommodate more patients. While a variety of factors are responsible, the workforce shortage is seen as an important

contributing factor to diversion. Those hospitals reporting 20% or more time spent on diversion had, on average, a vacancy rate for RNs of 16%. Many facilities in Georgia have RN vacancy rates approaching and exceeding that level, thus access to emergency care will likely be a problem for many Georgians in the future.

Perhaps most pertinent to the current times is the economic impact, both to individual quality of life and the overall community, health care professions have. Concerning the individual's quality of life, the health care professions represent a viable avenue for employment. While not necessarily recession-proof, jobs in health care fields have shown a great resiliency to the economic downturn confronting Georgia and the nation. While people can postpone elective surgery during times of economic hardship, they cannot put off essential health care needs. As such, despite growing unemployment in Georgia, employment in health care professions is rising. According to information provided by the Georgia Department of Labor, employment in health services rose between January 2000 and June 2003. During that period the seasonally adjusted unemployment rate for Georgia rose from 3.7% to 4.9%, but employment in hospitals rose 7.0%, from 102,400 employees to 109,600 employees (as of May 2003). Certainly other sectors of the economy, such as construction, continue to provide quality jobs to Georgians, but even in troubling economic times Georgians will be able to find work in health care.

The economic impact of health care services and jobs is not limited to the individual and, in fact, economic development cannot flourish without health care. Substantial evidence suggests that health care plays an indispensable role in the economies of states and counties. When industries and businesses need to relocate, they consider infrastructure, education and health care services as critical in their decision-making. Without accessible, high quality health care, employers cannot be confident that the basic needs of their employees will be met.

This holds the potential to negatively impact their profits and products. If communities lack sufficient, adequately staffed health care facilities, businesses will opt to move elsewhere, robbing Georgia and its communities of invaluable income and employment opportunities. Further, as the state embarks on an aggressive campaign to attract more retirees, and further ties its economic interests to this demographic group, health care workforce and infrastructure become even more important.

Even absent the potential introduction of new jobs into Georgia's communities, health care facilities and the services offered by health care professionals contribute considerably to the economies and budgets of local communities and their governments. A recent study, "*Assessing the Economic Impact of the Health Care Sector in Georgia*", confirmed the economic impact that the health sector plays on local economies and the state as a whole. Looking at the total impact stemming from direct and indirect expenses for health care services and induced spending from those employed in health care fields, this study found a stunning level of impact from these services. In terms of direct and residual employment, not just in health care professions, but employment in those sectors influenced by health care purchases, health care contributed 571,740 jobs overall in Georgia in 1999. The total earnings of these jobs approached \$18.5 billion, and although the report did not calculate anticipated revenue from this income, it should be anticipated that this income provides substantial inflows to state coffers. Finally, again relating to state coffers and budgets, the impact of the health care sector on retail sales collection provided an estimated \$77.7 million dollars off of estimated retail sales of \$7.8 billion.

Clearly, the weight of these final figures suggests that Georgia cannot afford to ignore the crisis happening with its health care professionals. Not only in terms of economics, but also in terms of life and limb, the quality of Georgia's health care sector effects all who call Georgia home. If state leaders and stakeholders from all areas fail to consider the continuing crisis in the health care sector, the quality of life for all in Georgia will be diminished, if not directly, then through the weight of the state's struggling economy.

INITIATIVES TO BOLSTER THE WORKFORCE

The Health Care Workforce Policy Advisory Committee (the Committee) met in full session five times in FY 2003. At these meetings the Committee heard information on specific professions and on overall trends in the workforce. Eminent health professions educators, leaders from professional associations and key personnel from state and private agencies made presentations on issues relating to nursing, allied health and behavioral health educational programming, education financing, regulatory issues, work environment, public information/consumer awareness and research and analytical functions/capacity issues.

When issues were identified at these meetings, and through other work of Committee members, subcommittees would convene to discuss them in greater detail, look at responses and develop effective strategies to begin to address these issues. Included in these meetings were representatives from critical partner agencies affected by these issues. Working with these partners, the subcommittees sought to build lasting partnerships to address shortages with the workforce.

The work of the subcommittees, and the partnerships that evolved through their work, have proven to be critical to the successes of the Committee. Since its inception in 2001, the Committee has taken on many initiatives to look at and resolve the shortages in the health care workforce. Throughout FY 2003, the Committee maintained initiatives implemented in previous years while undertaking new initiatives. These initiatives cover an array of issues, touching most areas relating to the production, utilization, regulation and support of the health care workforce. Collaboration has been forged with organizations such as: the University System of Georgia, the Department of Technical and Adult Education, the Professional Licensing Division of the Secretary of States Office, the Department of Education, the Georgia Hospital Association, the Georgia Nurses Association, the Georgia Nursing Home Association,

private educational institutions, the Georgia Student Finance Commission, and many others. The Committee's partners contribute considerable breadth of capacity and depth of resources. The Committee believes these partnerships will remain invaluable in the years ahead.

Because of the complex nature surrounding the education, regulation and use of health care professionals, Committee efforts developed within four standing subcommittees, each touching on a key aspect of the health care workforce shortage, including:

- Data and Forecasting
- Work Environment and Enhanced Productivity
- Education Programming and Student Financing
- Recruitment and Marketing

The work of these subcommittee is discussed in the following pages.

DATA AND FORECASTING:

This is not the first workforce shortage in Georgia, although it is the most troubling in memory. Shortages have risen in previous decades and have been effectively addressed to ensure the needed workforce was available in appropriate strength. However, Georgia has not developed the analytical capacity in response to these previous shortages and has not been able to monitor the workforce and track potential shortages. Therefore, it has been almost impossible to respond to emerging concerns before they become major problems. As a result, stakeholders throughout the state did not become aware of the current shortage until it had reached a substantial size. Time was lost and the scale of the shortage increased until it had reached a point where interventions would be costly and relief slow in arriving. This problem is not unique to Georgia. Health care workforce shortages are happening across the nation, and few entities have adequately tracked and identified shortages in

their early stages. As a result, few jurisdictions were prepared for the shortage, and all the states are now facing the considerable challenge of rebuilding their workforces.

To prevent a similar situation from developing in the future, and to enable Georgia to monitor the effectiveness of responses to the shortage, the Committee has concentrated on developing the analytical capacity to monitor the workforce and forecast future supply and demand. It is hoped that this will provide Georgia with the means to track the health care workforce and identify emerging imbalances between workforce supply and demand to enable early and effective interventions. Georgia should also be able to evaluate the effectiveness of programs and interventions designed to foster the growth and retention of professionals in the workforce. In times of budget constraints, it is important to ensure that limited resources are spent wisely.

HEALTH CARE WORKFORCE DATA CONSORTIUM:

OBJECTIVE: Early in the work of the Committee, the lack of a coordinated and comprehensive data function to look at the health care workforce was identified as a problem. Without reliable data, Georgia cannot gauge the capacity and distribution of its workforce, estimate future supply and demand for professionals, or make effective decisions to rectify emerging problems. By coordinating information on education, student financing and labor patterns, this consortium provides a complete picture of the supply and demand of the workforce through an integrated set of data from various state agencies to enable effective analysis, planning, and policy making.

PARTNERS: Professional Licensing Division of the Georgia Secretary of State's Office, the Georgia Department of Labor, the University System of Georgia, the Georgia Student Finance Commission, Department of Technical and Adult

Education, the University of Georgia, Carl Vinson Institute Of Government, Information Technology Outreach Services

KEY MILESTONES:

- HB 652 was passed during the 2002 session of the General Assembly to enable the collection of critical data from the Professional Licensing Division of the Georgia Secretary of State's Office.
- A Memorandum of Understanding for the Data Consortium was signed by all participating agencies and became effective March 28th, 2003.
- The first set of data from a participating agency was transferred to a data warehouse run by the University of Georgia Information Technology Outreach Services in late April 2003.
- First research using data stored in the consortium was produced in July 2003. This research analyzed the efficacy and efficiency of Georgia's service cancelable loan program for allied health professionals.

NEXT STEPS: Discussions regarding the transfer of data from other participating agencies are continuing, with anticipated returns expected for summer 2003. However, consensus has been reached on providing data into this consortium and providing Georgia with a key analytical tool in the development of its analytical capacity. As more data is imported into this system, it will provide indispensable information to workforce planning efforts.

RENEWAL SURVEYS FOR LICENSED PROFESSIONALS:

OBJECTIVE: The consortium needs high quality, concise and accurate data about the current health care workforce. Because of the nature of licensing of health care professionals in Georgia, the best means to generate this information is through surveys provided during the semi-annual renewal of licenses. Using this process the Committee should be able to acquire a standard set of high quality data on the supply, distribution, and demographics of current health care professionals licensed in Georgia. This data will be included in the information sent to the consortium and used for planning and policy purposes.

PARTNERS: Professional Licensing Division of the Georgia Secretary of State's Office, Information Technology Outreach Services.

KEY MILESTONES:

- Legislation (HB652) was passed during the 2002 session of the General Assembly to provide the legal framework and mechanism for the state's health care professional licensing boards to collect limited information from all licensees. This data collection would be part of the licensure renewal process.
- Working with advisory groups and licensing staff of the Secretary of State's Office, a core set of data was selected to be collected from each profession during re-licensure.
- Over the course of the FY 2003, surveys were sent to three professional groups, including registered nurses, licensed practical nurses, and pharmacists.
- Efforts were made to streamline the survey process and fully integrate on-line surveys into the on-line renewal process. Starting in FY 2004, the surveys will be fully integrated into the web-based license renewal process.

NEXT STEPS: Additional surveys covering all the health care professionals licensed through the office of the Secretary of State will be developed in time for the renewal of these professionals. In FY 2004 podiatrists, physical therapists and therapy assistants, dentists, dental hygienists, optometrists, occupational therapists, and dietitians will all receive surveys as they renew their licenses.

STATEWIDE SAMPLE SURVEYS:

OBJECTIVE: While the surveys provided to professionals at time of renewal offer important information on the current numbers, basic demographics and practice settings of Georgia professionals, they do not provide in-depth information on specific trends or issues affecting a particular profession. To gain a more thorough understanding of the issues that concern health care professionals, the Committee developed and distributed a statistically valid sample of surveys to three selected professions. By understanding issues of particular significance to each profession, the

Committee and other stakeholders will be better able to make informed policy and program decisions.

PARTNERS: Professional Licensing Division of the Georgia Secretary of State's Office, the Office of Institutional Research at the Medical College of Georgia, the Statewide Area Health Education Center (AHEC), and the Carl Vinson Institute of Government at the University of Georgia

KEY MILESTONES:

- Three professions, RNs, pharmacists and dentists were selected for review in FY 2003.
- The Medical College of Georgia Office of Institutional Research, in consultation with Committee staff, developed surveys to gauge issues of concern to the RN, pharmacy and dentistry workforces in Georgia.
- These surveys were distributed to a randomly selected group of current licensees in nursing, pharmacy and dentistry.
- By early June, 2003, staff at the Medical College of Georgia had received enough survey responses from each profession to enable a statistically valid analysis of survey responses from dentists and pharmacists.
- Staff at the Carl Vinson Institute received these surveys and began an analysis of each survey.
- Early data suggests these professions are contending with significant issues.

NEXT STEPS: Because of the timing of survey responses, staff at Carl Vinson did not receive the information in time to complete an analysis in this fiscal year. They are currently at work on analyzing responses and anticipate a written analysis early in FY2004. In addition, this process is an ongoing initiative of the Committee, and different professions will be selected each year for more detailed review. Another round of surveys will be developed and distributed early in FY 2004 to allow for effective analysis in FY 2004, in partnership with Mercer University.

OTHER DATA AND FORECASTING INITIATIVES:

In addition to the key efforts discussed above, the Committee worked on other important data initiatives.

- The Committee reviewed new workforce projections developed by the Georgia Department of Labor. Committee staff analyzed these projections to understand the forecasted demand for various professions and industries in Georgia. The data was provided earlier in this report and will guide the committee's work to focus on professions and industries with the greatest imbalances between labor supply and demand.
- Coordinating efforts between the Carl Vinson Institute Of Government, Information Technology Outreach Services and the Georgia Student Finance Commission, efforts are underway to analyze the impacts of the service cancelable loans provided to health care students. This analysis will be issued in a separate report to the Committee in early FY 2004.

WORKPLACE ENVIRONMENT AND ENHANCED PRODUCTIVITY:

A critical component of the current workforce shortage is the high rate of turnover of existing professionals. Under normal circumstances, a certain proportion of professionals is expected to leave the workforce because of retirement or other work-stoppage reasons. However, a growing number of professionals may be leaving the workforce early in their careers to escape difficult work environments and less than supportive workplaces. This problem is of great concern. If unattended, this issue may make it difficult to keep sufficient numbers of professionals in the workplace. Additionally, if this problem grows, it could dilute the effect of new professionals entering the workforce through the education system.

Workplace stress affects decisions about retirement and reduces interest in the health care professions, thereby making it harder to recruit and retain new professionals. Understanding the importance of the workplace in the long-term quality of the health care workforce, the Committee has focused

its efforts on understanding and relieving the negative dynamics that drive professionals from practice.

NURSE MENTORING PROGRAM:

OBJECTIVE: A principle factor seen as contributing to the flight of professionals from the workforce is the lack of support that new employees (both new graduates and newly hired, seasoned professionals) receive as they move into a workplace. The actions and skills of health care professionals may mean the difference between life and death. As such, these professionals receive substantial education to provide them with the skills necessary to engage effectively in their work. The fact that this education works can be seen by the volume of effective care delivered by countless health care professionals across the state. However, despite the quality of this education, it often fails to prepare practitioners for the rigors of the workplace. When first introduced to a new environment, both experienced professionals and new graduates must learn to successfully negotiate that environment, learning the specifics of that workplace and their jobs, while managing responsibilities of vital interest to those receiving care. High turnover rates and low satisfaction with work speak to the challenges new professionals face as they convert the knowledge they learned in the classroom into actual practice in the field.

To help stem the exodus of new professionals from the workforce the Committee and the Statewide Area Health Education Center (AHEC) office convened a group of professionals and associations to develop a model to stabilize new workers in the workplace. The charge of this group was to consider programming to take pressure off of new graduates and new hires and place them into a system that supports their growth at the beginning of their practice, allowing them the time and resources to more effectively succeed at their new jobs. A mentoring model was created to address some of the pressures that can lead to early withdrawal from the workforce. The Committee's intention is to provide this model to interested health care facilities to use in developing in-house mentoring programs. New employees will be provided with substantial supports, be given a way to express

concerns, raise questions, receive unbiased but supportive feedback, and ultimately find a home within a new practice environment. Combining all of these resources is expected to provide a means to calm the tide of turnover and build retention back into the system.

PARTNERS: Statewide AHEC Office, Georgia Nurses Association, Georgia Hospital Association, and the Georgia Nursing Home Association

KEY MILESTONES:

- The Statewide AHEC Network agreed to lead this initiative to develop a model for facilities throughout the state to implement nurse mentoring programs.
- Partner associations were identified and agreed to assist in developing a mentoring program to be ready for distribution by late 2003.
- Partners focused the initial mentoring model on the nursing professions (RN, LPN and CNA), with clear agreement to develop one for all relevant professions later.
- Four pilot sites were identified for testing of the program model.

NEXT STEPS: Georgia is one of the first states to develop a mentoring model, and testing and modifications to the program's design are anticipated. The Committee's intentions are to pilot and market this model to facility associations in the fall and early winter, with anticipated full distribution set for 2004. Revisions to the model will be made based on the results of the pilot. After this model has been effectively introduced to facilities throughout the state, efforts will begin to revamp the existing program to focus on other professions.

BRIDGE TRAINING PROGRAM:

OBJECTIVE: The field of nursing is divided in several components differing in skill level and professional responsibility. At the entry level is the certified nursing assistant (CNA). Responsible for much of the basic duties necessary to keeping Georgians in nursing homes and hospitals comfortable and safe, CNAs are a crucial component of the workforce. Yet this workforce is showing signs of distress. As with RNs and LPNs, poor job promotion opportunities for CNAs

are seen as a critical to this distress. Current clinical training does not adequately prepare CNAs to handle challenging patients and families, tackle difficult interpersonal communications, solve intricate problems, or think critically—all skills importance to health care facilities. Thus, few opportunities exist for CNA career development, both within the nursing aide profession and up into more advanced nursing professions, including LPN and RN.

Providing the training necessary to ease articulation of CNAs to LPNs is seen as a good way to stabilize the CNA workforce. This training would provide a process through which CNAs could gradually improve their skills and secure basic training to prepare them to meet the rigors of more advanced nurse training through a graduated and tiered process. Given the limitations on individual resources and other challenges, such an articulation model should also factor for such issues as historic failure in schools, affordability, transportation, day care, and other infrastructure issues.

Currently, no model for CNA to LPN articulation exists in Georgia. Working with partner agencies, the Committee is working to develop such an educational pathway to ease articulation of CNAs to LPNs and to account for the constraints of the facilities employing CNAs and CNAs themselves.

PARTNERS: The Atlanta Regional Commission/Atlanta Regional Workforce Board, the DeKalb Workforce Investment Board, Ethica Health Care, the Department of Technical and Adult Education, and the Georgia Department of Labor.

KEY MILESTONES:

- Secured agreement from the Atlanta Regional Commission/Atlanta Regional Workforce Board to lead this effort.
- To account for a variety of resource issues that confront agencies, individual professionals and facilities, the Atlanta Regional Commission/Atlanta Regional Workforce Board secured \$168,000 in Workforce Investment Act funds through the Georgia Department of Labor.
- Ethica Health Care agreed to use two of its metro Atlanta facilities as pilot sites for this training, providing tiered

CNA job levels to coincide with education achievements, support to those CNAs pursuing this education, promotions to advanced CNA positions and pay increases to CNAs as they complete the various components of this training. Ethica also agreed to provide adjunct faculty to support the clinical elements of this training program.

- The Department of Technical and Adult Education developed curriculum for each CNA level (ranging from CNA I to CNA IV). Programs at every level of CNA training are approved for technical certificates of credit, allowing students enrolled to access HOPE grants to cover their education expenses.
- DeKalb Tech agreed to host this training program and provide courses via traditional, face to face approaches and web-based curriculum offered at the pilot facilities.
- The Georgia Board of Examiners of Licensed Practical Nurses agreed to allow students graduating from this program to sit for the board exams required to secure licensure as practical nurses. This agreement was important given the program's efforts to avoid duplication of coursework through the various levels of this education which places emphasis on granting credit for work done at lower levels of the training that are repeated at higher levels.

NEXT STEPS: This effort is perhaps one of the most complex undertaken by the Committee, and requires the support of numerous agencies to ensure effective implementation. Yet, partners are making efforts to make this program operational in time to enroll students in the fall or winter quarter. Since several other DTAE institutions have indicated interest in working with this program, rapid expansion is anticipated once this program has emerged from the pilot phase. As this expansion occurs, CNAs and facilities throughout the state should be able to benefit.

CONTINUING EDUCATION INITIATIVE —GEORGIA LEADS:

OBJECTIVE: Healthcare providers are facing significant challenges in recruiting and retaining qualified managers in their facilities. Clinical health care educational programs

typically do not provide training in human resource management and organizational leadership. Because of this, health care professionals lack the needed skills to enable them to effectively manage others in a health care environment when they move into management roles. Yet the stressful work and financial environment in health care and expanding expectations from payers, patients and the public, require capable supervision and nurturing, dynamic leadership to assure program quality and provider survival.

Georgia LEADS (Lifelong Education And Economic Development Services) is the University System of Georgia's effort to realign its continuing education programs to focus less on personal improvement and more on professional development. Georgia LEADS also stresses continuing education programming critical to the economic development of the state. Recognizing this significant need and economic development challenge, the chancellor and staff of the University System of Georgia have considered the healthcare management field as one of the first statewide educational efforts for Georgia LEADS.

The Committee plans to work with Georgia LEADS to develop a generic, affordable healthcare management training and leadership certification program for statewide delivery. The educational track is intended to meet the management needs of healthcare organizations at every level. The program will focus on equipping healthcare supervisors and leaders with the general business and professional skills necessary to promote personal and organizational success and to encourage workforce satisfaction and retention. The program will be designed to fill a critical education and training need without duplicating or detracting from current work underway within individual organizations or professional associations. The university system, the Committee and partners hope to realize the goal of improving the skills and effectiveness of healthcare managers, and ultimately improve the work environment and the quality of care.

PARTNERS: University System of Georgia, Georgia Hospital Association, Georgia Nurses Association, Georgia Nursing Home Association

KEY MILESTONES:

- Preliminary planning and program design was undertaken with the university system to develop a continuing education program focusing on the training needs of health care professionals.
- After consultation with partner agencies it was agreed that the focus of this training would be on training health care professionals to be effective managers, supervisors and leaders.
- Meetings held between appropriate university system staff and partner associations representing the health care facilities in Georgia determined specific needs requiring attention in such a program.
- The university system developed and distributed a survey to appropriate health care facilities and professionals to determine what priorities they had for management training, including the content and focus of the programming, delivery methods and location, timing and duration of training.

NEXT STEPS: Due to current funding constraints facing state agencies and the need to effectively introduce the Georgia LEADS system to all 34 university system institutions, development of this program has been delayed. However, all parties hope to continue developing this initiative in the near future, after time has been given to ensure adequate understanding of this program across the university system and sufficient funds have been secured to effectively implement it. This may take place in FY 2004.

FORUMS ON WORKPLACE EXCELLENCE:

OBJECTIVE: Working conditions are a critical factor in the quality of a professional's work life, and help determine how long they stay in a given workplace or profession. Currently, the workplace is not seen as supportive of professionals or as encouraging professionals to remain in their professions. Although a number of factors contribute in creating this troubled environment, a solution is to get all the parties to work together to understand how to better coordinate their work and support each other in the workplace. People must communi-

cate and take action to develop a shared vision and ownership of the solutions that must be implemented within the workplace. To create this shared vision, a series of forums was executed in FY 2002 with the help of many partner agencies. The response received in 2002 was overwhelmingly positive and included requests to continue the dialogue in coming years. The forums continued in FY 2003, under the leadership of the Georgia Hospital Association.

PARTNERS: Georgia Hospital Association, Georgia Nurses Association, Georgia Nursing Home Association, Georgia Pharmacy Association, and the Georgia Society for Allied Health Professionals

KEY MILESTONES:

- A series of four forums was completed in 2002, bringing more than 110 professionals from all levels of health care facility staff together in a constructive dialogue. Response from these forums was overwhelmingly positive.
- The Committee recommended that the forums be conducted on an annual basis, because the success of these forums relies heavily on the continuation of a productive dialogue.
- The Georgia Hospital Association agreed to coordinate forums for FY 2003, partnering with the other health care professional associations that had participated in the forums in 2002.
- Four additional forums were conducted under Georgia Hospital Association leadership in June and July 2003, in Athens, Albany, Savannah and Marietta.

NEXT STEPS: If true and ongoing dialogue is to be sustained among the various levels of nursing home and hospital professionals, there must be a venue through which this dialogue is nurtured. Each facility must engage its own workforce in this dialogue; however, benefits can be gained through coordinated efforts at the state level. The Committee plans to continue working with its state level association partners in executing these forums.

EDUCATION PROGRAMMING AND STUDENT FINANCE:

To secure a long-term solution to both the current and emerging health care shortages, Georgia must take steps to ensure its education systems produce the number, mix and quality of professionals needed. The post-secondary education systems in Georgia have not kept pace with the need for health care professionals, although recent progress suggests that positive changes are underway. The importance of the productivity of Georgia's post-secondary education system in meeting workforce needs cannot be overstated. They must work to ensure enough potential professionals must be motivated and trained.

GEORGIA NURSING FACULTY SCHOLARSHIP PROGRAM:

OBJECTIVE: As noted earlier in this report, nursing programs throughout the state have increased enrollment to a level approaching that enjoyed in the mid-1990s. This underscores the commitment of Georgia's post-secondary education systems to help the state meet its need for RNs. Yet, as enrollment rises, demand for nursing faculty rises as well. Under normal circumstances, this would simply require that nursing education programs identify and hire additional faculty to meet emerging demand for faculty. Regrettably, nursing programs are finding that this faculty is not available. As nursing programs constricted in the 1990s, most programs eliminated the nursing education tracks from their programming, and limited Georgia's capacity to produce new faculty. Opportunities in clinical practice have also taken a number of faculty from academia and many existing faculty are approaching retirement age. Clearly, this dilemma must be addressed if Georgia nursing programs are to meet the demand confronting them.

The Committee has worked with state agencies and the private philanthropic community to establish a Nursing Faculty Scholarship Program to address the nursing faculty shortage. The program will counter two factors discouraging students from choosing a career in academic nursing: low salaries of faculty members and the growing costs of post-graduate nursing

education. Through this program, students may borrow money to secure a master's degree or doctorate in nursing at a public or private university or college in Georgia. In return for this financial support, students agree to teach nursing at the post-secondary level in any Georgia nursing program. Students can receive up to \$10,000 through this program. Loans are forgiven at a rate of \$2,500 per year in return for working as a nursing faculty.

The Nursing Faculty Scholarship Program represents one of the first programs of its kind in the nation and helps to put Georgia in the forefront of states struggling to resolve the shortages of health care professionals.

PARTNERS: Georgia Department of Labor, Robert W. Woodruff Foundation, Georgia Student Finance Commission

KEY MILESTONES:

- Secured agreement from the Georgia Student Finance Commission to operate this program. The Georgia Student Finance Commission is the state agency that serves as the chief financial aid agency for Georgia. It currently runs service cancelable loans, has the knowledge to operate a program of this kind and holds the statutory authority to enforce provisions of this program. In support of the state's application for funding from the philanthropic sector, the Georgia Student Finance Commission agreed to waive its administrative fees for running this program.

- \$1.6 million was secured to fund scholarships for four years, with \$1.1 million from the Georgia Department of Labor and \$500,000 from the Robert W. Woodruff Foundation.

- Program guidelines were developed through dialogue between the Department of Labor, the Georgia Student Finance Commission and the Committee and in consultation with experts in public and private nursing programs.

- The program began in June 2003 with the first scholarships going to six students enrolled in a post-master's program in education delivered by the Emory University, Nell Hodgson Woodruff School of Nursing.

NEXT STEPS: Over the full four years of this program, 160 RNs in Georgia will secure the training required to fill

faculty positions in nursing programs in every sector of post secondary nursing education, including the University System of Georgia, the Department of Technical and Adult Education and private universities and colleges.

ICAPP—INTELLECTUAL CAPITAL PARTNERSHIP PROGRAM:

OBJECTIVE: Georgia is already in the midst of a profound shortage of health care professionals. Therefore, Georgia needs to fill its health professional education programs with increasing numbers of students as quickly as possible. Under normal circumstances rapid expansion of education programs is difficult. This is particularly true for university system programs, which produce the majority of licensed health care professionals in Georgia. The mechanics of the funding formula governing any school's budgeting prevent rapid expansion of programs.

To account for this constraint, the university system developed the Intellectual Capital Partnership Program (ICAPP). Initially developed to provide a rapid response to answer demand for information technology workers, the program provides a way to provide funds to support rapid expansion of programs to meet identified needs for knowledge based workers. Funding is secured through

public/private partnerships between colleges/universities and providers in their area.

Because it became aware of the difficulties facing Georgia's workforce, University System of Georgia expanded its ICAPP programming to include health care workers in FY2003. Through combined efforts of the university system and the Department of Community Health, 13 programs were identified for support from this program. The students graduating from the ICAPP programs will represent new students in the system, who might not have been able to enroll in any program of the university system without ICAPP funding. Due to the private partnerships that are required by this program, all these students are guaranteed employment in Georgia facilities once they secure the required licensure to practice.

PARTNERS: University System of Georgia, Individual health professions programs throughout Georgia, hospitals and numerous private partners

KEY MILESTONES:

- Funding of \$1.5 million was secured by ICAPP staff to support new programming within university system schools. This funding was eventually increased to \$2.1 million in response to substantial response by university system programs and health care facilities throughout the state.

EXHIBIT 24: ICAPP HEALTH CARE PROFESSIONALS INITIATIVE STUDENT ENROLLMENT, FALL 2002

School	Profession	Degree	Actual Enrollment*!	First Class Graduates
ABAC	Nursing	AD	29	May-03
Armstrong Atlantic	Nursing	BS	28	May-04
Clayton College	Nursing	BS	11	Dec-03
Columbus State	Nursing	BS	70	May-03
Darton College	Nursing	AD	27	Aug-03
Floyd College	Nursing	AD	17	Dec-03
Georgia Perimeter	Nursing	AD	20	Dec-03
Georgia State	Nursing	BS	24	Dec-03
Kennesaw State	Nursing	BS	16	Dec-03
Middle Georgia College	Nursing	AD	53	July-03
MCG/Armstrong Atlantic	Medical Technologists	BS	30	Dec-03
UGA/Albany State	Pharmacy	Pharm. D.	25	May-03
Total			350**	

* Enrollment numbers reflect the number of new enrollees as a result of the ICAPP initiative.
 ! Figures reflect enrollment as of the end of the third quarter, FY 2003.
 ** Total numbers for the whole year may be higher.
 Source: University System of Georgia, Office of Economic Development.

- Private partners contributed an addition \$2.45 million to the ICAPP program, bringing the total financial commitment to \$4.55 million.

- Thirteen programs were selected that would produce additional RNs, pharmacists and medical lab technologists across Georgia. The programs and partners were located in 19 counties, and provided for good distribution of these new professionals across the state. A complete list of programs receiving ICAPP support is provided in *Exhibit 24*.

- Funding was provided to the approved programs early in the FY2003 academic year, and programs enrolled their first ICAPP students in the fall semester.

- Abraham Baldwin Agricultural College in Tifton graduated its first ICAPP nursing students in May 2003.

NEXT STEPS: Intentions are to fund the approved ICAPP programs for an additional year, through FY 2004. At the end of this period, it is anticipated that these programs will have been able to secure additional funding to enable them to continue operating the ICAPP programs. At the end of this time, over 500 new professionals are expected to graduate from these programs.

The university system is also contemplating expanding ICAPP to other interested institutions. The university system currently has seven proposals it received during the past year from interested health care programs. A final decision regarding these proposals has not been made because of constraints on the state budget. University system staff expressed an interest to develop these proposals based on the amount of funding made available to ICAPP programs in FY2004.

EXPANDED FUNDING FOR SERVICE CANCELABLE LOANS:

OBJECTIVE: Often the costs of education play an important role in determining whether potential students will seek a career in health care. If no resources are available to students seeking this education, many will not pursue health careers and will seek education in fields where support is provided. Furthermore, if resources are provided in other states, but not in Georgia, students may seek health care education outside of Georgia. However, if well-structured financial aid is provided, it can serve as a strong encouragement to students who desire careers in health care and to practice in this state.

Understanding this, the Committee and the Georgia Student Finance Commission expanded the funding for service cancelable loans (SCL) to health care students who agreed to practice in Georgia. The program offers students pursuing careers in nursing up to \$14,500 in return for service, with slightly lower amounts for other, allied health professions. The loans are paid off at a rate of one loan per year of service.

PARTNERS: Georgia Student Finance Commission

KEY MILESTONES:

- Efforts to expand funding for nursing and allied health service cancelable loans began in FY 2001.
- The SCL program was revised in FY 2001 to provide increased awards to individuals to increase the attractiveness of this financing. Nursing students can now receive up to \$14,500 over four years of education.
- Efforts continue to increase funding for this initiative and to ensure the maximum number of students benefit from this program. During FY 2003,

additional funding was secured to bring total funds for nursing and allied health SCLs to \$4.2 million.

- Efforts are underway to analyze the service cancelable loan program and determine ways to further expand the impact of these loans.

NEXT STEPS: Working with Georgia Student Finance Commission, funding for allied health service cancelable loans has quadrupled, rising from \$1.1 million in FY 2000 to \$4.2 million in FY 2004. As seen in *Exhibit 25*, increased numbers of students have received SCLs and each individual has received, on average, a larger amount of support. Since students are attracted to these loans, efforts to expand the impact of these loans will continue.

OTHER EDUCATION PROGRAMMING/STUDENT FINANCING INITIATIVES:

In addition to the key efforts discussed above, the Committee worked on other important initiatives.

- To allow for expansion and address maldistribution issues, Committee staff held preliminary meetings with the Statewide AHEC, Georgia Hospital Association, the Georgia Society for Health-System Pharmacists, Georgia Pharmacy Association and staff from the University of Georgia and Mercer schools of pharmacy. Although efforts are just beginning in this area, the Committee wants to develop a way to get pharmacy interns placed into areas of critical need.
- Nursing programs also identified concerns with clinical placement of nursing students. Committee staff has met with directors of nursing programs throughout the state. Preliminary conversations have begun. The bulk of the work on this matter will take place in FY 2004.
- New RN, LPN and pharmacy programs have been approved for operations in Georgia. *Exhibit 26* provides a complete list of these new programs, which should help in meeting Georgia's needs.

EXHIBIT 25: TREND IN USE OF ALLIED HEALTH SERVICE CANCELABLE LOANS

Year	Funds Allocated	Funds Expended	Borrowers	Avg. Distribution
2000	\$1,068,509	\$1,021,526	626	\$1,707
2001	\$1,368,955	\$1,134,195	661	\$2,071
2002	\$2,587,607	\$2,581,226	1219	\$2,123
2003	\$4,175,311	\$3,443,300	1293	\$3,229

Source: Georgia Student Finance Commission

EXHIBIT 26: NEW PROFESSIONAL EDUCATION PROGRAMS IN GEORGIA AS OF JUNE 2003

LPN Programs*	First Graduates	
Altamaha Tech	Appling County	2003
Columbus Tech	Stewart County	2005
Lanier Tech	Hall County	2005
North Metro Tech	Cobb County	2004
Okefenokee Tech	Bacon County	2003
Sandersville	Jefferson County	2005
Valdosta Tech	Cook County	2005
RN Programs**	First Graduates	
Northwestern Tech	Walker County	2004
Southwest Georgia Tech	Thomas County	2005
Kennesaw State (Rome Campus)	Floyd County	2005
Darton College (Colquitt Campus)	Miller County	2005
Clayton State (Jonesboro Campus)	Clayton County	2004
West Central Tech (Waco)	Haralson County	2006
Pharmacy***	First Graduates	
South University	Chatham County	2006

* Source: Georgia Board of Examiners of Licensed Practical Nurses
 ** Source: Georgia Board of Nursing
 *** Source: Georgia State Board of Pharmacy
 All programs graduate their first class by 2003 or later.

RECRUITMENT AND MARKETING:

Ultimately, if the concerns about the health care workforce are to be addressed, public awareness about the health care professions must be developed. Citizens in the state must understand the need for health care workers in Georgia and recognize the excellent career opportunities available for those who choose to become health care professionals. Potential workers—whether current students, those seeking a second career or those who have recently lost their jobs—need to learn about the opportunities that exist. To get this information out, the Committee has coordinated a wide array of efforts to spread the word about health careers to citizens in all walks of life.

GOVERNORS HONORS PROGRAM —HEALTH SCIENCES TRACK:

OBJECTIVE: The Governor’s Honors Program (GHP) is a six-week summer instructional program designed to provide gifted high school students challenging and enriching educational opportunities not usually available during the regular school year. Historically, GHP’s major instructional areas have been English, foreign languages, mathematics, science, social studies, visual art, theatre, music, dance, design, technology, and executive management, as well as instruction in four support areas—computers, counseling, library/media and physical fitness.

In the summer of 2002, working with the GHP staff at the Department of Education, the Committee conducted a special program focusing on the health care professions and sciences. The feedback received by coordinators of the GHP initiative indicated that the program went well. Although no specific mechanism was utilized to collect feedback, presenters and organizers received considerable, informal acknowledgement of the quality of the program and its interest to students. In response to this positive feedback, the Department of Education agreed to provide time in the 2003 GHP for another program focusing on the health sciences. In FY 2003 the focus of the seminar was on the genomic sciences. This seminar looked at the ethical, scientific and social forces that have an impact upon genetic science. Professionals from across the health care professions conducted the seminar and highlighted the role health care professionals play in the research behind genomics and the delivery of genetic health care.

LEAD PARTNERS: Georgia Department of Education, Southwest Georgia (SOWEGA) and Blue Ridge AHECs

KEY MILESTONES:

- The first health sciences session of GHP was conducted in the summer of 2002 (FY 2003).
- The Department of Education agreed to conduct a health sciences session in the 2003 GHP.
- Through ongoing dialogue with the Department of Education, the Committee was informed that a permanent health sciences track would

be developed, for implementation in the 2004 GHP.

- Working through the SOWEGA AHEC, a program focusing on genomics was developed for the 2003 GHP.
- Professionals from across the health care professions served on a panel for this seminar, including nurses, physicians, pharmacists, medical lab personnel and others.
- The program was conducted in July 2003.

NEXT STEPS: Because of the commitment by the Department of Education to develop a permanent track of the GHP, plans are being developed for a track devoted to the health sciences. This track would be implemented in the summer of FY 2004. Due to its familiarity with the GHP, the SOWEGA AHEC has agreed to play an important role in developing and implementing this track.

HOSA —HEALTH OCCUPATIONS STUDENTS OF AMERICA:

OBJECTIVE: While many materials have been developed to foster a better understanding of the health professions, the impact of these materials will be limited, absent any steady exposure to the health professions over time. An effective means to foster this continued exposure is to introduce a structured, ongoing dialogue on the health care professions into Georgia’s high schools. The Health Occupations Students of America (HOSA) provides this dialogue by providing a venue for students interested in health careers to explore the nature, science and work of the health care professions. As a co-curricular program closely aligned with the educational requirements high school students need to master if they choose to pursue a health care career, HOSA helps students learn about the health professions and the sciences behind them through attending events, competitions, meetings and field trips.

Georgia’s HOSA was established in 2000 with the leadership of the Department of Education and the Blue Ridge AHEC. In FY 2002, funds were provided to the Department of Education and the Blue Ridge AHEC to support Georgia HOSA, and to

strengthen HOSA by increasing the number of advisers, students and HOSA chapters in Georgia.

PARTNERS: Blue Ridge AHEC, Georgia Department of Education, local school systems, volunteers

KEY MILESTONES:

- The Department of Community Health issued a contract for \$30,000 to expand HOSA's presence in Georgia.
- Over the course of the fiscal year, efforts were made to expand HOSA's membership and chapters.
- In June 2003, the national HOSA conference was held in Atlanta, with 95 students and 30 teachers from 26 Georgia schools attending. At the conference, students competed on areas ranging from health sciences language, math, anatomy and other issues relating to the health sciences.
- Membership in HOSA increased from just over 900 members and advisors at the end of 2002 to nearly 1,400 by June 2003. In that same time, the number of HOSA chapters in Georgia had risen to 51.
- Georgia HOSA began efforts to hire a part-time executive director in the summer of 2003.

NEXT STEPS: During FY 2003, considerable progress was made in developing HOSA in Georgia. The seed funding provided for the organization fostered growth of HOSA chapters. Due to budget constraints, funding will not be provided from the Committee in FY 2004, although other means of support will be provided to ensure the ongoing viability of HOSA in Georgia.

COORDINATION WITH SCHOOL COUNSELORS:

OBJECTIVE: School counselors are vital to the supply of health care professionals, because they help youth with their career decisions. However, the health care community has historically done a poor job of educating counselors about health careers and the changing roles of health care professionals. Recognizing this issue, the Committee began efforts to develop relations with school counselors and the Georgia School Counselors Association to spread the message about current state of the

health care workforce. Local AHEC offices worked with counselors to provide them with up-to-date information on health careers and ways to recruit students into health science professions. To reach a wide audience of school counselors the Committee, through its AHEC partners, will participate in Georgia School Counselors Association's 2003 fall conference. On behalf of the Committee, participating AHECs will conduct seminars for counselors on the workforce shortage, current state of health care, health career options, the AHEC system, and the role counselors can play in recruiting students into health care professions.

LEAD PARTNERS: AHECs, Georgia School Counselors Association

KEY MILESTONES:

- Efforts to coordinate with the school counselors began in FY 2002.
 - Application to participate in the Georgia School Counselors Association's annual conference in November was made in June 2003.
 - By July 2003, the Committee had received approval to participate in the conference.
 - At least one staff from every regional AHEC office will participate in this event.
 - The SOWEGA AHEC will coordinate this effort.
- NEXT STEPS:** Through this effort, the Committee hopes to build greater understanding within school counselors of Georgia's need for, and the excellent careers to be found in health sciences. The fall conference will be an excellent opportunity to talk about the health professions and establish a partnership between the Committee, the AHEC system, the Georgia School Counselors Association and school counselors across the state.

EXPANDED EFFORTS WITH THE AHEC SYSTEM RELATED TO TRAINING, RECRUITMENT AND RETENTION:

OBJECTIVE: The AHEC system in Georgia is an indispensable partner in recruiting potential health care professionals, assisting in their education, and helping with their placement in communities across the state. To

maximize the benefits of the AHEC system, the Committee provided funding and other resources to the statewide AHEC system in FY 2003. This coordination was intended to expand AHEC activities, particularly to the non-physician workforce, and to stress certain components of their programming that held particular promise in meeting Georgia's needs for health care workers.

The Committee and the AHEC system agreed to focus on the following initiatives in FY 2003:

TEACH ACADEMIES:

Counselors, science, math and health teachers in our middle and high schools represent some of the best potential recruiters for the health care professions. Their daily contacts and influence with students are a powerful resource in educating children about the rewards and challenges of a health care career. However, most of these professionals are not aware of potential value of a career in health care, of the vast numbers of positions waiting to be filled, or of the educational requirements needed to ease into post-secondary education programs.

The AHEC system developed the Teachers Exploring and Advocating Careers in Health (TEACH) Academies to address this knowledge gap. The TEACH academy is a program developed for high school counselors, math, science and/or health occupations teachers delivered over three consecutive days in the summer. Through this program, school professionals are directly exposed to health careers and practicing health professionals and educated on effective communication methods. Curriculum components include: opportunities to shadow health professionals, learning about the use of AHEC support materials, adaptation of new content knowledge, experience in specific educational situations, and increasing knowledge about the shortage of health care professionals in Georgia.

The TEACH Academy concept was initially developed and piloted in FY 2002. Because of the success and overwhelming feedback that was received from the participants, the Committee and the AHEC system took TEACH Academies state wide. As of June 2003, a TEACH Academy was

completed or planned for summer 2003 in all but one of the six AHEC regions. Because of the success of this concept, plans are to continue to support this program for further expansion in Georgia.

WORKFORCE SPECIALISTS:

Workforce Specialists were created to work with schools, local health professional education programs, community groups, the Georgia Department of Labor, and health care providers to identify and recruit young people and mid-career adults into health care professions. One specialist was placed in all but one AHEC office throughout the state. Although these specialists are still new in Georgia, preliminary feedback indicates that they are filling a unique role and are already having an impact, in the following areas:

- More effective communications and understanding is evolving with staff at the career centers and workforce investment boards of the Department of Labor. Since these offices play a role in allocating resources and directing job seekers to particular careers, the Department of Labor can begin to play an even greater role in steering job seekers into health careers.
- Workforce Specialists are playing a critical role in building relationships with local schools and teachers. Through these relationships, schools and teachers become advocates for health careers and help students identify the value of a health career.
- School counselors represent a critical link between the health careers and middle and high school students. However, building the relationships with school counselors and their associations has been difficult. With staff now in place, aggressive efforts are under way to build partnerships with school counselors.
- The specialists have increased activities within the AHEC system. They have played pivotal roles in implementing, managing and overseeing TEACH Academies, summer camps, after school programs and many other, ongoing AHEC activities.

GEORGIA HEALTH CAREERS RESOURCE CLEARINGHOUSE:

As the resources and materials related to health careers education, training, recruitment and retention grow, a need for creating a clearinghouse to serve as the quarters for such materials has emerged. This clearinghouse would provide a one-stop shop for materials specific to Georgia that could be used by partners from the health care sector to promote health careers, educate communities and foster better work environments. Examples of the materials that would be included in this clearinghouse include the Health Careers Manual, various curricula used in teaching students about the health careers, manuals for implementing education programs such as career camps, after school programs and TEACH Academies, miscellaneous artistic materials designed to stir interest in younger students and much more.

The Statewide AHEC Office, with guidance from the Committee, is currently creating a physical and virtual clearinghouse. The physical component of the clearinghouse will be set up in the Statewide AHEC Network Program Office at the Medical College of Georgia in Augusta and the Atlanta Campus of Mercer University. To ease access to the material in the clearinghouse, a virtual component will be created on the web to allow for review and purchasing of this material. The clearinghouse will focus on recruitment and retention products developed in Georgia.

AFTER SCHOOL PROGRAMS/ HEALTH CAREER CAMPS:

Health career camps and after school programs offer an opportunity for brief but concentrated exposure to the health professions. Interested students can attend these camps or programs at high schools, technical schools, colleges, universities and provider facilities. Through these programs high school students get an opportunity to engage in activities conducted by health professionals, shadow them in their work and learn more about the specifics of the health professions. AHECS coordinated a number of these camps throughout the state to provide greater access to students in FY 2003.

KEY MILESTONES:

- By February 2003, workforce specialists were in place within all but one of the regional AHEC offices.
- Throughout the year, as many as 130 train the trainer sessions were conducted, enabling area non-profit, social service, youth and department of labor agencies to conduct their own programs educating students and job seekers about the health careers.
- By the beginning of summer, 16 health careers camps were coordinated and ready for implementation.
- By the beginning of summer, five TEACH Academies were in place, with students drawn from counties covering every AHEC region in Georgia.

NEXT STEPS: Work with the AHEC system in Georgia is vital to the long-term success of the Committee's efforts. Despite budget constraints, in FY 2004 additional resources were provided to the AHECs to further expand their work in Georgia.

OTHER RECRUITMENT AND MARKETING INITIATIVES:

In addition to the key efforts discussed above, the Committee worked on other important initiatives.

- Committee staff coordinated efforts with partner associations to broadcast a positive message about the health professions. Articles were prepared and delivered to local newspapers throughout the state for publication by Georgia Nurses Association, Georgia Hospital Association, Georgia Nursing Home Association and Georgia Pharmacy Association.
- Georgia Hospital Association engaged in the development of the GREAT (Giving Recognition for Excellence Advocacy and Teamwork) Ambassador program, which allowed hospitals to submit articles, highlighting exceptional employees, the best of which were to be selected for print. Georgia Hospital Association gathered the personal stories communicated by healthcare professionals, which stated why they chose an occupation in healthcare. The stories were prepared by the professionals' hospitals and Georgia Hospital Association.

- At the end of FY 2002, the Committee developed a website focusing on health care careers. The website provided easy access to information on education requirements, financial aide, characteristics of the professions, licensing requirements, salary expectations and other information. Review and modification of this website took place throughout FY 2003. To date, the website has received over 20,000 hits. Efforts to increase its impact and accessibility are underway. Subsequent increases in traffic are expected.

- To support AHEC efforts in disseminating information on the health careers to youth \$100,000 from the Department of Technical and Adult Education was secured from the School to Work Initiative. These funds were provided to the AHEC system to augment existing efforts, including expansion of TEACH Academies throughout the state.

NEXT STEPS AND CHALLENGES AHEAD

While Georgia has seen important improvements in the health care workforce through FY 2003, much work remains to be done if the state is to be ready for the historic growth anticipated in demand for health care professionals. Partly, this work involves the completion of actions that were initiated in FY 2003 and before. Partly, it will require new initiatives and strategies that evolve from the growing understanding of the nature of the shortages. Regardless, Georgia must establish a climate conducive to creating and maintaining a stable and adequate health care workforce in future years.

To reach this goal, Georgia must focus on a few top priorities:

- Continue to build the analytical capacity of the Committee. This requires continued emphasis on developing the data consortium, data inputs through renewal surveys and issue-specific sample surveys, and further developing partnerships with leading academic research institutions in the state. Through these efforts, Georgia can become a recognized leader in understanding workforce issues and improve its ability to preserve its health care workforce.

- Work with partners in the post-secondary education systems to build the education capacity of and accessibility to Georgia's health professions education programs. The state must address shortages in faculty, capital/infrastructure limitations, continue to leverage resources for students to combat rising economic barriers to education, and work with the post-secondary education system to eliminate program design characteristics that impede student progress.

- Further spread the word on the rewards of careers in health care to youth, displaced workers, those seeking career changes and others. The AHEC system, the Georgia Department of Labor and various association partners must continue to promote the health care professions. While these partners have already provided substantial and important support in

Despite the current climate, Georgia's future holds considerable promise. However, if the state is to reap the rewards of this future, it must work today to get needed health care professionals tomorrow.

this area, the state has only begun to see the potential power of these partnerships.

- Maintain a focus on the workplace environment so that Georgia's health care professionals work in places that value their contributions and support them personally and professionally. All the stakeholders that have an impact upon the quality of the workplace must continue to confront its challenges and turn the negative dynamics at play there into assets. The investments made by the state, health care facilities, professional associations and individuals must ensure that the resources targeted for professionals have maximum benefit.

Despite the current climate, Georgia's future holds considerable promise. However, if the state is to reap the rewards of this future, it must work today to get needed health care professionals tomorrow. Failure to do so may dampen the collective future of all Georgians, economically and physically. Therefore, Georgia must continue to press forward with initiatives to ensure these professionals are present in needed numbers, where and when they are needed. Georgia's citizens deserve no less.

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