

# Georgia Health Sciences University

The Next Great  
American **University**

## 8-Year Vision

**Editorial note:** This document was generated between July 2011 and August 2011 in response to a June 2011 request by Governor Nathan Deal and Chancellor Henry (Hank) M. Huckaby to better understand the direction and the vision for health professions education in general, and the state's health sciences university in particular, in Georgia.

The following narrative has been reformatted and edited for publication using the original draft presented and approved.

**Georgia Health Sciences University**  
**The Next Great American University**

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# AN 8-YEAR VISION FOR GEORGIA HEALTH SCIENCES UNIVERSITY

## The Next Great American University

### EXECUTIVE SUMMARY

Georgia Health Sciences University (GHSU) is home to the state's only public medical college and more than 60 other academic programs in the health and biomedical sciences. But **GHSU is much more than a university—it is an academic health center (AHC), one of only 100 such institutions nationally.** GHSU is a university, but also a business, a health system, and a research and innovation hub.

Building and sustaining an AHC positioned to compete on a national and international stage requires significant—*of public and private dollars, of community support, and of effort by the organization's leadership, faculty, and staff.*

#### 8-YEAR VISION FOR HEALTH PROFESSIONS AND MEDICAL EDUCATION IN GEORGIA

National and state data indicates that optimum models for training are as follows:

- **Distributed Model: For undergraduate, associate, and technical degrees**, because they have a:
  - Lower requirement for resources and faculty expertise.
  - Higher need to educate students where they live and work, and where they will practice.
  - High student volume, which requires a greater number of training partners/sites, although they are:
    - Highly dependent on having advanced and doctoral degree faculty available, and
    - Training efficiency and quality will be increased through greater coordination within and between the University System of Georgia (USG) and the Technical College System of Georgia (TCSG) institutions.
- **Hub-and-Spoke Model: For advanced and doctoral degrees** (MDs, DMDs, DNPs, MSNs, PhD in Nursing/Allied Health Sciences), as this structure:
  - Is resource and expertise efficient.
  - Leverages scarce and expensive advanced degree faculty available.
  - Requires access to niche/highly specialized expertise.
  - Utilizes the strength of established resources with existing expertise and infrastructure.
  - Retains the ability for students to complete their training in areas where they may eventually practice.
- **The Hub-and-Spoke Model for Advanced and Doctoral training, including medical education, is best carried out in:**
  - **An integrated AHC**, because it:
    - Increases the chances of generating associated research and innovation.
    - Increases the probability that graduates choose a career as faculty in academic medicine.
    - Maintains/expands clinical skill set of trainees.

#### Quality MEDICAL EDUCATION involves a nexus of resources:

- *A medical school, but also a broad array of other health and biomedical sciences programs.*
- *A culture of research and discovery that infuses new knowledge into education, training, and the care of patients.*
- *A thriving clinical environment that exposes students to the full continuum of care.*
- **This combination of resources is what characterizes the nation's AHCs.**

- Increases the complexity of patients/situations seen.
- Increases the awareness of the complexities/limitations/opportunities of healthcare delivery systems.
- An Interprofessional setting, because it:
  - Creates synergy between advanced degree training (e.g., collaboration in research).
  - Increases probability of sharing resources between programs.
  - Provides broader perspective to trainees regarding health and healthcare.
- **The effectiveness and quality of medical education is optimized when the medical school is part of an AHC.** Of those medical schools not part of an AHC and not having an integrated teaching hospital:
  - None were in the NIH top 50 ranked institutions (as determined by NIH awards dollars).
  - Only one was a part of a university member of the Association of American Universities (AAU).
  - Only one was ranked by “US News & World Report” in the top 50 for research and one in the top 50 for primary care.
  - All had relatively smaller applicant pools, medical student class sizes, number of graduates, and doctoral level programming.
  - All had limited, or no, array of other health sciences programs.
  - All had limited investment in and small cohorts of basic or clinical faculty, noted drivers of educational and research productivity and quality.
- **Overall, second state-supported medical schools are generally smaller and of lower educational quality and research productivity than the primary state institution** (e.g., University of South Carolina (USC) vs. Medical University of South Carolina (MUSC):
  - While expansion of undergraduate medical education and training does require additional faculty and facilities, expansion of faculty and facilities within a currently accredited medical school is more cost-effective than full duplication of infrastructure and faculty, because:
    - Medical education is best carried out by an AHC.
    - The cost of duplicating an AHC is significant, e.g., the cost of replicating GHSU exceeds \$4 billion in infrastructure alone, not considering the faculty and staff recruitment and training needed.
    - State investment in creating a second state-supported medical school is unwise and unwarranted.
    - Of note, the state of Georgia already supports two other medical schools to significant degrees (Mercer University and Morehouse, receiving \$69,279 and \$37,778 of state appropriations per medical student, respectively, compared to GHSU’s \$86,547/student, even when not adjusted for the greater research efforts of GHSU faculty).

As the state’s sole public AHC, **GHSU stands at the center of a future-oriented 8-year statewide vision for health professions and medical education** that involves the following key components:

- A distributed model for undergraduate, associate, and technical degrees.
- A hub-and-spoke model for advanced and doctoral, including medical, health professions education.
- A single strong public medical school part of an integrated AHC.
- A structure that primarily responds to state needs, not to institutional/presidential aspirations.

## AN 8-YEAR VISION FOR GHSU

Considering the above framework, and that GHSU serves as the state's health sciences university and AHC, our **8-year vision for GHSU** includes growth, leadership, and excellence in:

- **Education:** A 25 percent student enrollment increase, with a focus on enhanced graduate level education and greater geographic distribution (the "spoke" in the hub-and-spoke model) in training sites.
- **Research:** A doubling of research faculty and growth in areas of existing (cancer, neurosciences, and cardiovascular biology) and emerging (regenerative/reparative medicine, public and preventive health, and molecular/personalized medicine) research strength, with an emphasis on clinical and translational research.
- **Clinical:** Expanded tertiary and quaternary (specialized and cutting-edge) clinical services across a broader regional footprint, leveraging our nationally recognized work in patient- and family-centered care, and our existing strengths in research and faculty, with expanded education, research, and clinical partnerships across the state.

		Actual 2010	Projected 2020	Projected Change
<b>Total Enterprise Revenues</b>		\$1.16 Billion	\$1.64 Billion	+\$0.48 Billion
<b>Student Enrollment</b>		2438	3048	+610
<b>Research FTEs &amp; NIH Funding</b>		100/\$40M	200/\$90M	+100/\$50M
<b>Economic Impact</b>		\$2.1 Billion*	<b>\$3.0 Billion</b>	+\$0.9 Billion

\*According to Tripp Umbach, a nationally recognized market research firm

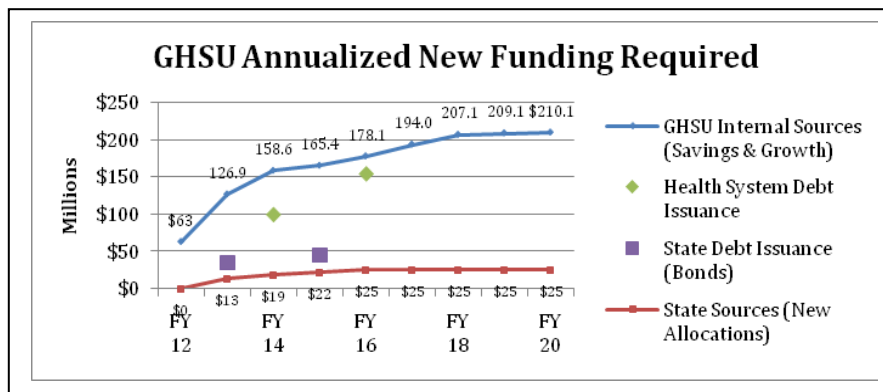
## ECONOMIC IMPACT

GHSU currently has a \$2.1 billion direct annual economic impact on the region (see table) and an \$8.3 billion on the Georgia economy. **Over eight years, the plans implemented under our vision will increase GHSU's direct**

**annual economic impact to the region to ~\$3 billion, and to at least ~\$12 billion for the state.** The doubling in research faculty and NIH funding alone is projected to create 800 to 1,000 new jobs, generate \$4 million to \$5 million in state and local tax revenues, and produce 100+ patents and five to 10 new spinoff companies. Additionally, this plan generates a significant spillover and downstream economic effects.

## STATE AND GHSU INVESTMENT REQUIRED TO FULFILL THE VISION

Through bold and aggressive recontextualization strategies, GHSU will generate the vast majority of dollars required to fuel the growth and expansion of this, the state's only public AHC (see table below and graph to right).



**below and graph to right). The total 8-year new investment required from state sources represents <13 percent of the total \$2.03 billion required (denoted in box).**

**NEW STATE SUPPORT REQUESTED:** \$80 million in two general obligation bond offerings (\$35 million in FY13 and \$45 million in FY15), and \$179 million over 8 years in recurring state support for cancer research and supplemental formula funding.

Sources of Funding*	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Total
<b>RECURRING</b>										
<b>INTERNAL RECURRING</b>										
- Clinical	\$61.0	\$103.9	\$142.2	\$133.1	\$130.3	\$130.5	\$130.8	\$130.8	\$130.8	\$1,093.4
- Philanthropy	\$2.0	\$17.0	\$4.0	\$8.0	\$11.0	\$13.0	\$14.0	\$16.0	\$17.0	\$102.0
- Tuition	\$0.0	\$1.5	\$2.4	\$5.3	\$6.8	\$9.5	\$11.3	\$11.3	\$11.3	\$59.4
- Research	\$0.0	\$4.5	\$10.0	\$19.0	\$30.0	\$41.0	\$51.0	\$51.0	\$51.0	\$257.5
<b>Total: Internal</b>	<b>\$63.0</b>	<b>\$126.9</b>	<b>\$158.6</b>	<b>\$165.4</b>	<b>\$178.1</b>	<b>\$194.0</b>	<b>\$207.1</b>	<b>\$209.1</b>	<b>\$210.1</b>	<b>\$1,512.3</b>
<b>STATE RECURRING (requested)</b>										
- Cancer Research	\$0.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$80.0
- Ongoing Supplemental Funding**	\$0.0	\$3.0	\$9.0	\$12.0	\$15.0	\$15.0	\$15.0	\$15.0	\$15.0	\$99.0
<b>Total: State</b>	<b>\$0.0</b>	<b>\$8.1</b>	<b>\$13.1</b>	<b>\$16.1</b>	<b>\$19.1</b>	<b>\$19.1</b>	<b>\$19.1</b>	<b>\$19.1</b>	<b>\$19.1</b>	<b>\$179.0</b>
<b>DEBT FINANCING</b>										
<b>INTERNAL (GHS MED CTR)</b>							<b>Debt</b>	<b>Total</b>	<b>GHSMD</b>	<b>\$255.0</b>
- Clinical Capital Projects			\$100.0		\$155.0					
<b>STATE GO BONDS (requested)</b>								<b>Total State Debt</b>		<b>\$80.0</b>
- Ed. Commons Bldg		\$35.0								
- Research Bldg				\$45.0						
<b>Total: Debt</b>	<b>\$0.0</b>	<b>\$35.0</b>	<b>\$100.0</b>	<b>\$45.0</b>	<b>\$155.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$335.0</b>
<b>TOTAL: ALL SOURCES</b>	<b>\$63.0</b>	<b>\$174.9</b>	<b>\$277.6</b>	<b>\$232.4</b>	<b>\$358.1</b>	<b>\$219.0</b>	<b>\$232.1</b>	<b>\$234.1</b>	<b>\$235.1</b>	<b>\$2,026.3</b>

\* In millions

\*\* State formula funding changes that bring balance and greater equity for GHSU, over and above current annual allocation

## 8-YEAR VISION GOALS AND OBJECTIVES

Following are summarized the suggested goals and objectives of the above 8-year plan to ensure greater excellence and growth in the health professions and medical education in Georgia, and for the state's AHC and health professions university:

### A. Educational Goals:

1. Utilize a hub-and-spoke model for advanced health professions education, expanding partnerships to enhance student enrollment and educational delivery.
2. Determine optimal structure for the state's only public AHC.
3. Achieve a strategic 25 percent graduate enrollment increase across an evolving academic program array.
4. Focus strategic faculty increases to support academic program growth and maintain accreditations.
5. Align the academic program array to state workforce needs.

### B. Research Goals:

1. Move medical school into the top 50 in research funding by:
  - Doubling our research funding from the NIH.
  - Recruiting 100 net new research faculty.
  - Building Georgia's second National Cancer Institute (NCI)-designated Cancer Center.
  - Increasing our research space to accommodate new faculty.

2. Expand our economic impact through increased commercialization of research discoveries.

**C. Healthcare Goals:**

1. Increase advanced and complex clinical services.
2. Achieve top performance in quality for AHCs.
3. Create a broader regional footprint through expanded partnerships.

**D. Efficiencies and Financial Goals**

1. Diversify revenue sources and support from non-state and private sources.
2. Increase efficiencies.
3. Increase direct annual economic impact.

***Investing in this vision will better leverage the state's assets and position GHSU as a:***

- State and national thought leader.
- High-tech, high-touch hub for advanced/graduate health professions education.
- Innovative research and biotech powerhouse.
- Respected provider of high quality specialized clinical care to an expanded region.
- Growing economic engine for the state of Georgia.



# GEORGIA HEALTH SCIENCES UNIVERSITY

## The Next Great American Academic Health Center

*“Are we willing to make the choices that are necessary to keep our great American universities the best in the world?”*

-- Jonathan R. Cole in “The Great American University”

### INTRODUCTION

This document addresses two principle questions:

- What is Georgia’s 8-year vision for medical and health professions education?
- Within this context, what is the 8-year vision for Georgia Health Sciences University?

To answer the first question, national and state data indicate that the optimal, most cost-effective models for training are:

- A “distributed” model for undergraduate, associate, and technical degrees.
- A “hub-and-spoke” model for advanced and doctoral health professions, including medical education delivery.
- A single strong public medical school as part of an integrated AHC.
- A structure that primarily responds to state needs, not to institutional/presidential aspirations.

As to the second question, we should note that Georgia Health Sciences University (GHSU) is much more than a university. Yes, it is home to the state’s only public medical college and more than 60 other academic programs in the health and biomedical sciences. But GHSU is also a business enterprise and an academic health center (AHC). Thus it is a university, but also a health system *and* a research and innovation hub—one of approximately 100 AHCs in the nation.

As the state’s sole public AHC, we believe GHSU is central to a statewide vision for health professions and medical education. It is not only an educational unit, but is also a critical part of the state’s healthcare safety net.

This document makes the case for focusing state resources on the building of a single strong public AHC for the state of Georgia, one well positioned to meet the health professions education needs of the state through both hub-and-spoke and distributed educational delivery models, leveraging both existing and new, innovative partnerships.

#### What is an Academic Health Center?

An Academic Health Center (AHC) is the combination of:

- A medical school.
- One or more health professions schools or programs such as dentistry, nursing, pharmacy, public health, and allied health.
- One or more affiliated hospitals or health systems.
- Extensive associated biomedical research programs.

Following we describe the unique value proposition of AHCs, describe present case studies of medical education models in other states, provide an overview of GHSU’s current status, and outline a clear vision for the state’s AHC, a future in which GHSU is:

- A state and national thought leader.
- The partner of choice for colleges, universities, hospitals, and health systems.

- A high-tech, high-touch educational hub for advanced/graduate health professions education.
- An innovative research and biotech powerhouse.
- A respected provider of high quality specialized clinical care to an expanded region.
- A growing economic engine for the state of Georgia.

We believe that with the right vision, the right leadership, the right support, and the right stewardship, GHSU will emerge as the next great American AHC.

## AN 8-YEAR VISION FOR THE HEALTH PROFESSIONS AND MEDICAL EDUCATION IN GEORGIA

### Health Professions Educational Delivery Models

The production of health professionals, in contrast to almost any other profession, requires that these individuals not only be educated (acquire knowledge) but also be trained (acquire skills). Hence, when determining the optimal statewide educational model, consideration must be given to the type of student, the need for local training; and the availability of supervised training sites, skilled faculty, and patient cohorts.

National and state data indicate that optimal models for training are as follows:

- **For advanced and doctoral degrees: A hub-and-spoke model**

The training of advanced and doctoral degree professionals (MDs, DMDs, DNPs, MSNs, and PhDs in Nursing/Allied Health Sciences), is optimal when part of a hub-and-spoke arrangement (Fig. 1), as this type of structure:

- Is more resource and expertise efficient.
- Leverages available scarce and expensive advanced-degree faculty.
- Requires access to niche/highly specialized expertise.
- Utilizes the strength of established resources with existing expertise and infrastructure.
- Allows students to complete their training in locations where they may eventually practice.

Benefits of the hub-and-spoke model for advanced and doctoral degree training include that it:

- Draws strength from an established resource with existing expertise and infrastructure.
- Provides for high quality educational delivery without a high capital expenditure.
- Eliminates the need for costly and duplicative administrative oversight of multiple academic programs.

Fig. 1: Current Branch Campuses and Official Partners

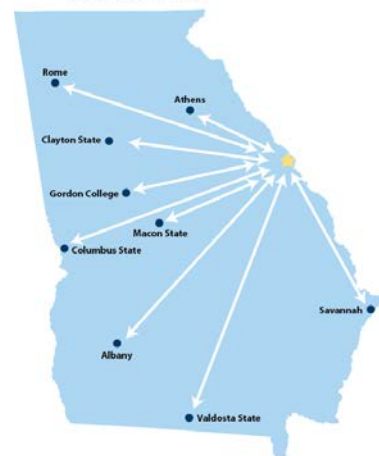
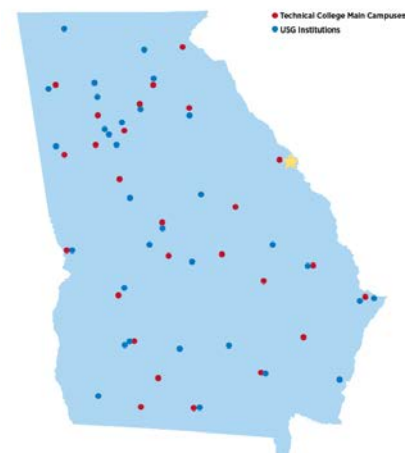


Fig. 2: Opportunities for Undergraduate Education Distributed Model



- Allows for easily replicating the “spokes,” since programmatic complexity (accreditation, technology, budgeting, etc.) is managed at the “hub.”

Overall, one strong public medical school as part of an integrated AHC (see below for further discussion) provides a solid foundation for a hub-and-spoke model of educational delivery. The hub-and-spoke distribution paradigm has worked exceedingly well in many industries, including transportation, telecommunications, freight, and distributed computing. We believe that the model holds great value for delivering high quality medical education across the 60,000 square miles of Georgia—the 24th largest state in the nation.

- **For undergraduate, associate, and technical degrees: A distributed model**

In contrast, the training of health professionals earning undergraduate, associate, and technical degrees should follow a distributed model (Fig. 2, previous page), as there is a:

- Lower requirement for resources and faculty expertise.
- Higher need to educate students where they live and work, as many are working students.
- Greater need to educate students where they live, as that is likely where they will eventually practice ([Appendix 18](#)).
- Greater number of students, which requires a greater number of training partners/sites, which cannot be handled by only one AHC.

In common with advanced degree programs, training for these undergraduate degrees requires having sufficient advanced and doctoral degree faculty available. Faculty availability is a significant limitation in almost all health professions, including nursing, and the need to have these highly skilled individuals located throughout the state compounds the problem. Consequently, distance learning and telecommunications tools would facilitate training effectiveness and efficiency, as that would allow for leveraging faculty at more specialized centers (e.g., an AHC).

Greater coordination among institutions in the University System of Georgia (USG) and the Technical College System of Georgia (TCSG) would also increase training effectiveness and efficiency. Additional drivers for enhanced educational partnerships include potential conflict among institutions competing for scarce resources; the need to synchronize training programs between institutions, as many students require continuing training; and the need to ensure similar quality across training sites.

## Medical Education in Georgia

Medical education is not simply about the education of medical students. Medical education of the highest quality requires a nexus of resources—a medical school, but also a broad array of other health and biomedical sciences programs, a culture of research and discovery that infuses new knowledge into education/training and the care of patients, and a thriving clinical environment that exposes students to the full continuum of care. This combination of resources is what characterizes the nation’s approximately 80 AHCs.

Therefore, our vision of medical education in Georgia comprises the following key components:

- One strong public medical school as part of an integrated AHC.
- A hub-and-spoke model of educational delivery.
- A structure that responds to state needs, not institutional aspirations.

### *The value of an integrated AHC to health professions and medical education*

AHCs have a tripartite mission of education, research, and patient care, three primary areas of focus that work in concert to improve health and well-being as they expand the boundaries of knowledge. This combination is doubly powerful: as a vital contributor to individual and public health, and as a significant engine of economic growth for the communities and states in which they are located.

We see the results every day: the healing of one individual, the education of one health professions student, or the discovery of one fragment of new knowledge. Taken together, these core activities improve individual lives and lead to better health and prosperity for a community and a nation.

AHCs represent a compelling value proposition, particularly regarding medical education. Of institutions that have a medical school but are not classified as being part of an AHC and did not have an integrated teaching hospital:

- None are in the National Institutes of Health (NIH) top 50 ranked institutions (as determined by NIH awards).
- Only one is ranked by “US News & World Report” (USNWR) in the top 50 on research indicators.
- Only one is ranked by USNWR in the top 50 on primary care indicators.
- Only one is part of a university member of the prestigious Association of American Universities (AAU).
- The majority have relatively small applicant pools, small medical student class sizes and graduates, and small doctoral level programming.
- The majority have a limited array of or no other health sciences programs.
- The majority are not able to sufficiently invest in basic or clinical faculty and have relatively small cohorts of these drivers of medical education productivity and quality.

Thus, to the extent that quality is measured by rankings and applicant competition for educational opportunities, these types of institutions have not distinguished themselves in the areas of medical education and research.

Another benefit of AHC-based medical education is the opportunity it presents to prepare health professionals for the 21st century. Education and training the workforce of the future is not driven by today's supply and demand; we must educate the right kinds of health professionals in the right type of environment to meet *increasing* health care needs of an *increasingly* diverse population in an *increasingly* complex health care delivery system. National trends in health professions education are focused on training the workforce of the future to function in interdisciplinary teams, not as isolated individual practitioners. (See Appendix 2 for relevant literature.)

Additionally, health professionals are increasingly relied upon to function in complex care situations, addressing not only the clinical aspects of care but also social and cultural aspects related to education and the economy, environmental influences, technology, and class, race, ethnicity and other factors associated with delivering culturally competent care. The health professional of the future cannot simply be clinically proficient; he or she must be socially, politically, economically, and culturally adept as well.

We believe the highest quality medical education occurs in an environment that provides substantial opportunity for interprofessional education and practice, as this cultivates collaborative approaches to providing patient-centered care. Research demonstrates the benefits of this approach, including improved patient outcomes, enhanced provider satisfaction, and more

effective use of resources. AHCs, more than any other environment, provide the nexus of resources required to accomplish this.

Our analysis reveals that medical education provided in isolation from other health professions programs is not as successful as medical education provided in the context of an AHC when considering the residual benefits noted above. For example, of the 38 institutions that are not members of the Association of Academic Health Centers, approximately 80 percent are not ranked at all by USNWR in the area of Primary Care. Factors that affect this ranking include student selectivity admission statistics (MCAT, GPA, and acceptance rate) and faculty-to-student ratio.<sup>1</sup>

### *The value of a second public state-supported medical school*

Analysis reveals that adding a second medical program at a non-AHC-based institution may increase the number of physicians educated, but it does not enhance national prominence for the second school, either via reputation or research rankings. South Carolina presents a compelling case study; it is home to two public medical schools and bears many similarities to Georgia, including a common border. Both states have rapidly growing populations, similar racial/ethnic demographics, comparable socioeconomic profiles (e.g., mean household income and percent of population living in poverty), and relatively equivalent population density per square mile. A review of the status of these schools is instructional.

**A Case Study—Medical Education in South Carolina:** The state of South Carolina operates two universities offering educational programs in the health sciences. The University of South Carolina (USC) is a comprehensive, multi-campus research university enrolling nearly 45,000 students and awarding nearly 9,000 degrees annually across the state; it houses a School of Medicine that was founded in 1977. The Medical University of South Carolina (MUSC) was founded in 1824 and is a freestanding health sciences university enrolling around 2,500 total students each year. Together, these universities supply health care providers to the state's population of 4.6 million citizens.

*Both universities qualify as AHCs based on the Association of Academic Health Center's definition (see box on p. 3). However, USC's hospital affiliation is not integrated with the operations of the university, as MUSC's Medical Center is. MUSC fills nearly 600 residency positions annually, whereas USC fills only two. Both universities have medical school-based practice plans.*

*Situated in the state capital of Columbia, USC's medical program is about half the size of the Charleston-based MUSC—329 and 648, respectively. At each institution, the same number of approximately 2,600 applicants competes for positions in each medical school class.*

*Overall, clinical faculty comprise the greater portion compared to basic science faculty at both universities. MUSC employs about 465 percent more clinical faculty than USC, severely differentiating the universities' ratios of clinical faculty to medical students. At MUSC the clinical education ratio of faculty to students is 1.4; USC's ratio is 0.5. The same pattern applies to biomedical education, where the MUSC biomedical faculty is 158 percent larger than USC's. Similarly, the faculty-to-student ratio for biomedical sciences is 0.6 at MUSC and 0.3 at USC. The larger faculty has resulted in more robust performance for MUSC—in NIH awards, in national rankings, and in other important quality measures.*

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<sup>1</sup> <http://www.usnews.com/education/best-graduate-schools/articles/2011/03/14/medical-school-rankings-methodology-2012?PageNr=1>

*The South Carolina legislature invests significantly more state dollars in the MUSC medical program. In FY2010, MUSC's allocation for medical education was \$53.7 million, compared to USC School of Medicine's \$19.7 million. This dichotomy is congruent with the universities' overall funding portfolio for medical education. And the return on investment is significant. MUSC generates considerably more revenue in NIH research (813 percent more), gifts and endowments (188 percent more), and hospital transfers (127 percent more).*

*Among medical schools with NIH-funded research, MUSC ranks 47 among 134; USC ranks 107. USNWR ranks medical schools on two sets of indicators—research and primary care. For research, MUSC ranks 60th and USC ranked 91st out of 92 programs. For primary care, of 97 ranked medical schools, MUSC ranks 58th and USC ranks 73rd.*

*With more students, more faculty, more state funding, and an integrated teaching hospital, MUSC has positioned itself as a force among AHCs. In contrast, while a competent educator of the state's physicians, USC has not achieved the same over its 34 years in operation.*

**Similar analyses for other Southeastern states are presented in Appendix 1, and with few exceptions, similar trends were identified for other second public medical schools.** These include (second medical school referenced first) the University of South Alabama v. the University of Alabama at Birmingham (UAB), Louisiana State University (LSU)-Shreveport v. LSU-New Orleans, East Carolina University v. University of North Carolina (UNC), and East Tennessee State Univ. v. University of Tennessee Health Sciences campus (UTHSC). Florida is excluded as its population is more than two-fold greater than Georgia's.

Overall, second public medical schools were smaller in student and faculty, less research productive, less well supported by philanthropy, had lower faculty/student ratios, and were ranked lower in both research and primary care productivity.

**Of note, two additional medical schools are already being supported by the public to a significant degree in Georgia.** In FY 2011 Mercer University received over \$21 million in state appropriations (with 312 medical students) and Morehouse received over \$8 million (with 215 medical students) in support of medical education. In comparison, GHSU received approximately \$66 million in medical education support (with 770 medical students).

Neither Mercer's nor Morehouse's medical schools are ranked by USNWR in research. In primary care, USNWR in 2010 ranks Morehouse 16th and does not rank Mercer. For NIH ranking in dollars awarded, Morehouse is ranked 93rd and Mercer 130th. In contrast USNWR ranks GHSU 71st for research and 63rd for primary care, and GHSU ranks 70th in NIH funding. Notably, neither Mercer's nor Morehouse's medical schools are part of an integrated AHC, nor do they own their own teaching hospital, which may hamper their ability to fully develop their research and academic programs, and hence their national rankings.

**Taken together, these data support the conclusion that the quality and effectiveness of medical training and biomedical research is greatest at the primary public (state) medical school and when part of an integrated AHC.**

### ***Governance versus structure in medical education***

The question of how educational institutions and programs are governed distracts from the more crucial question of structure—and how that structure equates to enhanced institutional performance. The USG should structure medical and health professions programs in the best



interests of the state of Georgia without regard to institutional or presidential aspirations. The following list outlines various models and includes institutions within each category:

- **Freestanding/health sciences university:** A medical school that is part of a freestanding parent health sciences university, which also has other schools such as nursing, pharmacy, dentistry, and allied health.
- **Related/proximate:** A medical school that is part of a public or private university and is located in the same city as the parent university.
- **Related/distant:** A medical school that is part of a public or private university, but is not located in the same city as the parent university (this category includes urban/suburban relationships).
- **Non-AHC medical schools:** A medical school that is not a part of the AHC group but has any one of the above relationships to the parent university

The following **Table** provides information regarding the relative rankings of these models, considering all USNWR top 50 medical schools. Medical schools that were associated with an AHC ranked best overall. Of AHCs, those associated with small proximate comprehensive institutions (e.g., UAB) ranked better, followed by those affiliated with a large proximate comprehensive university (e.g., UNC). The least effective in supporting research seemed to be those medical schools that were the distant health sciences campus of a larger university. Of course, there is significant heterogeneity in the rankings.

<b>Top 50 Medical Schools*</b>				
	<b>Total</b>	<b>NIH Funding</b>	<b>USNWR Research</b>	<b>USNWR Primary Care</b>
AHC: Freestanding	29	28%	17%	31%
AHC: Proximate/Small	18	61%	72%	50%
AHC: Proximate/Large	33	48%	48%	48%
AHC: Distant related	14	14%	36%	36%
Non-AHC: Freestanding	9	11%	11%	11%
Non-AHC: Proximate/Small	16	25%	31%	13%
Non-AHC: Proximate/Large	9	33%	44%	22%
Non-AHC: Distant related	4	25%	25%	50%
<i>*According to whether they were part of an AHC or not, and whether they were part of a freestanding health sciences university, a distant health sciences campus of a larger university, or a large or smaller proximate university</i>				

**These data suggest that one strong public medical school that is part of an integrated AHC best leverages the state's investment and well positions GHSU to accomplish its mission and its vision over the next eight years, as outlined in the following section.** In addition, these data suggest that GHSU's position in Augusta is secure, as the state of Georgia has already invested >\$4 billion in infrastructure alone at that site. Finally, these data also suggest that consideration should be given to creating a small proximate comprehensive university in Augusta that will include the health sciences campus and AHC.

## AN 8-YEAR VISION FOR GHSU

The second question explored in this document is, within the context outlined above, what is the vision for GHSU? This section outlines a clear and detailed vision for the state's AHC.

We will now take a closer look the history and current state of Georgia's sole public AHC to gain a better understanding of the state's investment in GHSU and what it will take for GHSU to emerge as the next great American AHC.

### GHSU: A Brief History

GHSU was initially chartered in 1828 as the Medical Academy of Georgia, offering a one-year lecture series leading to a Bachelor of Medicine degree, to be followed by a second year at another school for the MD degree. In 1829, the Academy was extended to a two-year program, conferring the MD degree. In 1835, the school moved into its first dedicated and freestanding academic building. In 1873, it was affiliated with the University of Georgia and the school became the Medical Department of the state's flagship university.

Up to 1950, financial and social pressures in Georgia caused fluctuations in the school's fortunes. Firm financial support from the state came only after years of persuasion by citizens, alumni, and faculty. At different times relocation was recommended—to Athens, in physical proximity to the University of Georgia, and to Atlanta, a more central and populous area of the state. The Great Depression nearly closed the school in the early 1930s, a fate avoided by a concerted drive from the city of Augusta and from alumni throughout the state.

The 1950s brought rapid changes to the institution. Until that point, the school focused only on the medical program, which is the foundation of the modern day GHSU. In that year the Board of Regents (BOR) of the USG made the school an independent unit in the system, and for the sixth time in its history, the school's name was changed: it became the Medical College of Georgia (MCG). In 1956, a state-constructed and -managed teaching hospital replaced clinical arrangements with the city of Augusta, and the growth of the school as an AHC began.

Despite the diversification of academic programming and expansion of mission and scope that began in 1950, 60 years later MCG remained a largely unknown and misunderstood institution. In 2010, the A.L. Burruss Institute for Public Service and Research at Kennesaw State University was commissioned to conduct a survey of faculty and administrators at medical and health sciences institutions across the country to determine the extent to which the institution had a national reputation, as well as the extent to which colleagues at health sciences universities across the nation understood the scope of the institution's mission (see Appendix 3 for research findings). The data clearly indicated that the institution's name did not reflect its identity and that the institution did not enjoy the national reputation purported by many, particularly alumni. With the unanimous approval of the members of the USG BOR, the new administration corrected the misnomer and the Medical College of Georgia was renamed Georgia Health Sciences University, with MCG remaining as the name of the university's medical school, heralding the transformation currently underway.

### GHSU: A Contemporary View

Over its 183-year history, GHSU has achieved recognition for specific achievements in research, education, and clinical care—pockets of quality, if you will—but not for the widespread excellence that one would (and should) expect in a world-class AHC. As examples:



- All eight programs eligible are nationally ranked, but our medical college, the 13th oldest in the nation, lags its peers in many important indicators.
- While our research faculty are among the most productive per capita in the nation, we rank 70th in funding from the NIH.
- GHSU's research strength is primarily rooted in the basic sciences; our clinical and translational research activities are underdeveloped.
- Clinical and translational sciences awards (CTSAs) have been granted to 60 institutions nationwide; GHSU is not among them.
- While GHSU is nationally recognized for patient- and family-centered care, we have not reached the "leader board" for clinical quality in a way that establishes us as a dominant force among the nation's health systems.

## **Pathways to More Robust Growth and Development**

Again we turn our attention to South Carolina, in this analysis, to conduct a "twin study." GHSU and MUSC share many similarities, thus providing an interesting case study in the growth and development of an AHC (see Appendix 4 for a more comprehensive comparison). MUSC was founded in 1824; GHSU just four years later in 1828. Both institutions became universities in 1950 and opened their teaching hospitals approximately five years later. Both are located in metropolitan areas of about half a million people. But the differences are telling:

- MUSC has a much larger endowment than GHSU.
- MUSC has considerably more research funding than GHSU.
- MUSC generates more clinical revenue and primarily generates it in a three-year-old medical center compared to GHSU's 55-year-old clinical facility.
- MUSC has more total square footage, much of it more modern than GHSU's facilities.
- MUSC has added 2.9 million square feet in new academic and research facilities over the past 30 years.
- MUSC has a much larger faculty, despite a comparable student body.
- And, MUSC significantly outpaces GHSU in fundraising.

Based on this analysis, we have identified pathways that will lead to greater growth and development of GHSU over the next eight years:

### **1 - Articulate a big dream**

- Extend our planning timeline beyond year-to-year concerns.
- Embrace big, bold, audacious goals to drive growth and expansion.
- Continue focus on strategic research growth versus individual faculty interest.

### **2 - Place greater emphasis on building the great AHC of the future**

- Focus on GHSU's uniqueness: the only AHC in the USG and the only public AHC in the state.
- Continue to value education, but increase emphasis on the other elements of GHSU's tripartite mission (research and clinical care).
- Partner with the USG to focus investment of state resources in one single, strong AHC.
- Invest in strategy and the infrastructure to support it.

### **3 - Increase community support**

- Build on and leverage the city of Augusta's \$10 million gift that allowed for the purchase of Gilbert Manor, a 15-acre plot of land contiguous to campus, which allowed GHSU to expand its physical footprint.

- Continue to engage local, regional, and state constituents in GHSU’s current operations and plans for the future.
- Champion city and state initiatives, as a rising tide lifts all boats.

#### **4 - Build philanthropy**

- Launch a capital campaign that generates excitement about GHSU’s future.
- Embrace a broader approach to fundraising, one that leverages grateful patient giving.

#### **5 - Enhance branding/communication efforts**

- Highlight to a much greater extent GHSU’s accomplishments and role in the state.
- Build stronger connections with national media outlets.
- Leverage opportunities provided by changing the name of the university and health system.

Our “MUSC-GHSU Twin Study” (**Appendix 4**) demonstrated that building an AHC positioned to compete on a national and international stage requires significant investment—of public and private dollars, community support, and effort by the organization’s leadership, faculty, and staff. It also requires fresh perspective, outside opinion, and new viewpoints that challenge the status quo and long-held organizational beliefs and practices.

Since assuming the dual roles of president of GHSU and CEO of the Georgia Health Sciences (GHS) Health System in July 2010, President Ricardo Azziz has rapidly advanced the university’s mission of better health. His leadership team is generating unprecedented momentum in vaulting the university to national and international prominence as an integrated AHC and a biomedical research institution, focusing on the following priorities:

- Excellence and growth in research, education, and clinical care.
- Leadership development and accountability.
- Diversity and inclusion.
- Civic and community engagement.
- Fiscal sustainability and growth.

GHSU is optimally poised to step away from the status quo in the direction of a brighter future—for both the university and the state as a whole.

### **Education: Future State**

GHSU will pursue a strategic and transformational approach to educating the health professionals of the 21st century; an approach focused on advanced degree and doctoral level health professions education and training, specialty and educator training, leading reform in health professions education and training, and advocating health policy throughout the state and nation. The following efforts are key to this approach:

- A strategic 25 percent enrollment increase across an evolving academic program array.
- Aligning the academic program array and its growth to state workforce needs.
- Strategic faculty increases to support academic program growth and maintain accreditations.
- Continued and expedited trend toward a more geographically distributed education model (i.e., expanded statewide footprint) with increased distinct statewide education sites.
- Expanding partnerships to enhance student enrollment and educational delivery.
- A solid business model for all academic programs with defined deliverables to justify state support.

### **Educational delivery model and role of partnerships**

We envision using a hub-and-spoke model for advanced, doctoral, and first professional programs. Hub-and-spoke-model graduate programs focused on advanced care and education add value in two primary ways:

- They expose students to a broader array of difficult patient care situations.
- Student clinical rotations in rural areas significantly increase the likelihood of students practicing in that area.

For undergraduate programs, GHSU proposes a distributed model that leverages partnerships with other USG and TCSG institutions. Partnership is key to both of these approaches.

- Within the **USG**, we envision increased use of consortia-delivered instruction and inter-institutional agreements for didactic and clinical experiences, leveraging personnel and non-personnel resources.
- For the **TCSG**, we envision more undergraduate feeder partnership programs, with a goal of populating GHSU's graduate programs with students enrolled in these partnership programs.
- And with **colleagues at universities in other countries**, we envision a comprehensive internationalization effort with student exchanges to meet the UGS's goal of a more globally educated student.

### **Enrollment growth**

The proposed eight-year growth plan calls for an approximately 25 percent increase in overall enrollment, with growth focused on graduate and first professional programs. The plan also involves a significant increase in the number of underrepresented students being educated and trained in GHSU academic programs.

**Current and Projected Enrollment by Degree**

<b>2010</b>		<b>2020</b>
476	Undergraduate	476
1,962	Graduate	2,528
587	Masters	641
300	Doctoral	427
1,066	First Professional (MD/DMD)*	1,460
<b>2,438</b>	<b>Total Students</b>	<b>3,004</b>
362	Under-represented minorities	520**

*\*Represents 52 percent increase in dental enrollment. \*\*Requires a highly selective out-of-state student pool and an aggressive recruitment strategy linked to branding, scholarships, and partnerships such as the "Bridging the Gap" program, expansion of community-based programs (AR Johnson & CT Walker) with pipelines to four-year institutions.*

GHSU is well positioned to lead in developing health policy and in health education workforce planning, as it is both an AHC and a Southern Association of Colleges and Schools (SACS)-accredited Level VI institution able to award doctoral degrees across its programmatic array. The Level VI designation also positions us best to achieve Georgia's strategic goal of producing both advanced degree health professionals for the complex needs of the state's citizens and the next generation of faculty to educate those professionals at institutions across the state.

Drivers for increasing advanced degree program offerings include:

- A graduate degree-level curriculum generates a more educated professional who is better able to function within interprofessional settings among other doctoral-level trained health professionals.

- Advanced degree programs in the allied health sciences and nursing are needed to manage the state's increasingly complex patient population and, in some instances, to meet professional accrediting standards.
- The physician shortage creates a greater demand and dependency on extender masters- or doctorate-level health professionals, such as Physician Assistants and Nurse Practitioners.

During the past decade, GHSU has answered the call, and increased its masters and doctoral program offerings. In fact, GHSU continues to offer the largest number of advanced health professions degrees in the state, despite the added faculty and facilities requirements of these programs (e.g., higher difficulty and cost of faculty recruitment, need for lower student-to-faculty ratio, etc.).

#### Enrollment considerations by discipline:

- **Medicine:** The MCG at GHSU is currently the 10th largest medical school in the nation by number of students per class and is on track to increase its student body to 300 medical students per year, which would make it one of the top five medical schools in the nation by size of student body. However, as for Dental Medicine (see below), it will be critical to better ensure a greater faculty-to-student ratio, which is currently one of the lowest in the nation and is strictly regulated by the school's accrediting body. Plans for medical school expansion will include increasing the size of its faculty body.
- **Dental Medicine:** The BOR and state government cooperatively supported the construction of a new College of Dental Medicine clinical practice building to address Georgia's dentist workforce shortage. Its completion will allow the GHSU College of Dental Medicine to increase its DMD and dental resident class sizes to 100 entering dental students and 73 residents. However, unlike medical education expansion, dental education expansion in Georgia remains unfunded in the largest recurring expense category: faculty. The dental accrediting agency maintains strict faculty-to-student ratios, so any enrollment increases must have corresponding faculty increases. The required faculty increase to accommodate the enrollment growth is over 20 percent at an estimated cost of \$2.2 million annually (approximately 97 FTE to 120 FTE). This will not be offset appreciably by the added tuition due to enrollment increases. Nationally, the four-year cost to educate one dental student exceeds \$110,000 making this profession one of the most, if not the most, expensive to educate. The primary cause is that equipment required for clinical training is expensive, and patient care during dentistry training is billed at a significantly reduced rate compared to that of medical education situated in a hospital.
- **Nursing:** Though the need for healthcare professionals is acute across many disciplines, it is perhaps most acute in nursing. Federal analysis of Georgia's nursing workforce suggests that without corrective measures, the state may face a shortage of as many as 38,000 practicing nurses by 2020. An equally acute shortage of masters- and doctorate-level nursing faculty compounds the problem. As an institution currently granting Master of Science in Nursing (MSN), Doctor of Nursing Practice (DNP), and PhD in Nursing degrees, GHSU's greatest contribution to alleviate this shortage will be increasing our enrollment and graduation of students in these advanced degree programs. While many factors beyond GHSU's control affect a graduate nurse's decision to enter academia, we anticipate that targeted enrollment and curriculum design strategies could allow GHSU to provide for 25 percent of the state's demand for additional nursing faculty.

- **Physician extenders and allied health professionals:** The two main primary care physician extenders are Nurse Practitioner and Physician Assistant, both trained at the masters or doctorate level. In the rehabilitative sciences, professionals in Physical Therapy and Occupational Therapy are also trained at the doctorate or masters level, and the demand for them is twice current supply. At GHSU all of these programs have three times as many applicants as can be enrolled, mostly due to resource constraints. The College of Nursing's Doctorate of Nursing Practice program successfully creates highly functioning nurse clinicians and educators; and its remarkably successful and innovative Clinical Nurse Leader masters program too has a 3-to-1 applicant-to-enrollee ratio. Flexible degree offerings of post-masters certificates combine with these programs to generate highly trained and specialized advanced practice nurses in many disciplines.
- **Biomedical Science:** Program enrollment in the biomedical sciences is escalating in alignment with current research growth patterns, and doctoral programs in this area will continue to expand as GHSU's research portfolio grows. GHSU's more robust research mission will benefit biomedical science students in several ways. First, an enhanced research experience undoubtedly improves educational outcomes. Secondly, research is key to an effective biomedical sciences education program, especially at the PhD level, as the institution and the investigators become branded and recognized as experts in thematic areas of research. And third, a biomedical sciences program associated with an AHC provides students the opportunity to directly, frequently, and easily see the impact of their research productivity on health care improvements.

The projected GHSU 25 percent enrollment growth will occur across nearly all health sciences and nursing graduate programs in the advanced care nursing disciplines, rehabilitative sciences, and physician extender disciplines (*the numbers in parentheses represent the number of positions needed annually above and beyond current production*):

- Nursing growth will move from a current total enrollment of 600 to 750, with more growth at the graduate level, including in nurse anesthesia. The rate and quantity of growth is projected to require eight additional faculty FTEs and approximately four part-time or clinical faculty to achieve accreditation standards of student-to-faculty ratios.
- The high-demand allied health sciences disciplines of physical therapy (42), occupational therapy (35), clinical laboratory sciences (80), and physician assistant (30) will all grow by at least 25 percent and will require concordant increases in faculty growth to again achieve accreditation standards.
- Likewise, the need for advanced practice nurses (1,072), registered nurses (462), and nurse anesthetists (54) will not be directly addressed by these 2020 GHSU projections; rather, GHSU can educate and graduate future faculty needed to train many others through other institutions.
- The undergraduate degree programs in allied health sciences and nursing will be examined for possible opportunities to create consortia or partnerships with the two- and four-year state universities or the technical colleges in a more distributed model of educational delivery.

In summary, the impact will be a more robust and educated health professions workforce ready to serve the increasingly complex needs of patients in the state of Georgia. The higher degree training will allow staffing interprofessional teams of highly trained (MS and above) health professionals to cooperatively manage complex patient needs. And the doctoral level degree programs GHSU offers will create the educators and researchers needed for the future. GHSU may not be able to train all health professionals required, but it can be a guiding influence and leader in training the future community of educators.

The research future state outlined in the following major section will increase biomedical sciences program array and enrollment for research-oriented doctoral students, new public health programs, bioinformatics, biostatistics and clinical/translational science programs. Enrollment in dual degree programs (MPH, MBA, PhD degrees) will be encouraged and result in more qualified workforce professionals.

### **Number and type of faculty**

GHSU's vision for its educational enterprise will require an increase of approximately 12 percent in instructional faculty and an increase of 32 percent in adjunct faculty to support the increased need for clinical experiences to support programmatic growth. On this later point, centralized coordination of clinical sites to ensure effective use of competitive site resources and enhanced inter-professional education will be critical, as will a robust community-based faculty recruitment and rewards program.

As both the hub-and-spoke and distributed models will require seamless synchronous and asynchronous instruction, some faculty training will be necessary to ensure command of the technology. Additionally, some faculty re-education may be required to place an enhanced emphasis on interprofessional and team-based education.

### **Tuition revenue**

This plan should result in more than doubling of tuition revenue over the next decade.

	<b>FY 2011 Actuals</b>	<b>FY 2012 Budget</b>	<b>FY 2020 projected*</b>
Total	\$35,853,013	\$39,692,336	\$74,636,810
Total undergraduate	4,119,766	4,743,662	7,008,549
Total graduate	31,733,247	34,948,674	67,628,260
Total masters and doctoral	7,362,949	7,978,572	13,910,069
Total first-professional	24,370,298	26,970,102	53,718,191

*\*Assumes 5 percent increase in tuition annually as well as increase in enrollment*

This increased revenue will better position GHSU to function not only as the state's health professions and biomedical science flagship for the Georgia's public higher education system but also a health professions education thought leader in the state—advocating and championing change and enhanced coordination among all institutions (public, private, and proprietary) engaged in the education and training of the health workforce of the future.

## Research: Future State

GHSU will pursue a strategic and transformative approach to research that involves the following efforts.

### *Strategic growth in areas of existing and emerging strength*

GHSU plans strategic growth in our three major areas of existing strength:

- Cardiovascular disease and hypertension.
- Cancer.
- Stroke/neuroscience and behavioral sciences.

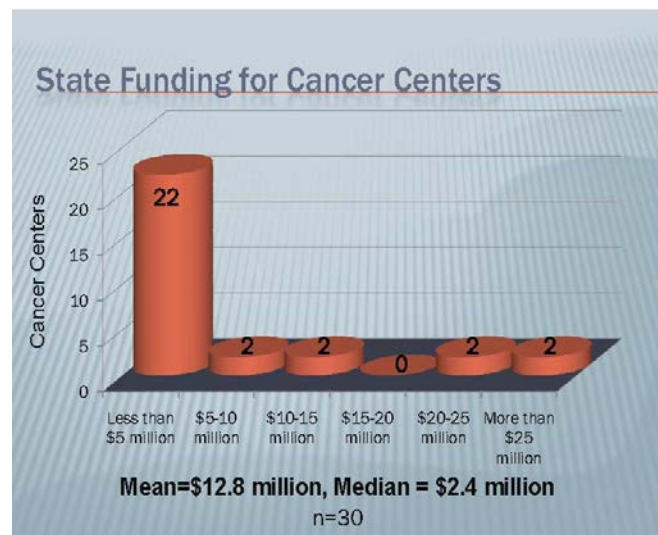
Additionally, we will grow three new, emerging areas that are key to our future and to the health of Georgians:

- Public and preventive health.
- Regenerative and reparative medicine.
- Personalized medicine and genomics.

### *Building the second NCI-designated cancer center in Georgia*

Over 40,000 Georgians are diagnosed annually with cancer, and over 15,000 deaths occur annually due to this disease. The rate of 187 cancers per 100,000 citizens exceeds the national average. Eighty percent of Georgia's counties exceed the national cancer death rate, and some of the rural counties exceed 250 deaths per 100,000 citizens. Cancer is a serious issue for Georgia and citizens.

However, in contrast to neighboring states, North Carolina, Florida, and Tennessee, all of which have more than one NCI-designated cancer center, Georgia has only one NCI-designated cancer center, Winship Cancer Center at Emory University, so designated in 2009. Alabama (at UAB) has had an NCI-designated cancer center since 1972 and South Carolina since 2009 (at MUSC).



Building a large regional NCI-designated cancer center requires significant and sustained state support and investment. For example, in 2007 Texas established a \$3 billion, 10-year cancer research investment initiative to fund groundbreaking cancer research and prevention programs and services in Texas. And while all states have not invested at this level (see chart to left, and Appendix 17 for full report), many are making focused and sustained investments in their state's cancer centers. Moffitt Cancer Center in Florida has been the recipient of a continuing \$10 million annual investment from the state's Biomedical Trust Fund, after

an initial \$100 million investment. Even after severe cuts to funding in this year's legislative session, Moffitt continues to receive \$5 million annually. **GHSU will require a similar commitment to build a world-class program for Georgia in cancer prevention, diagnosis, and treatment.**

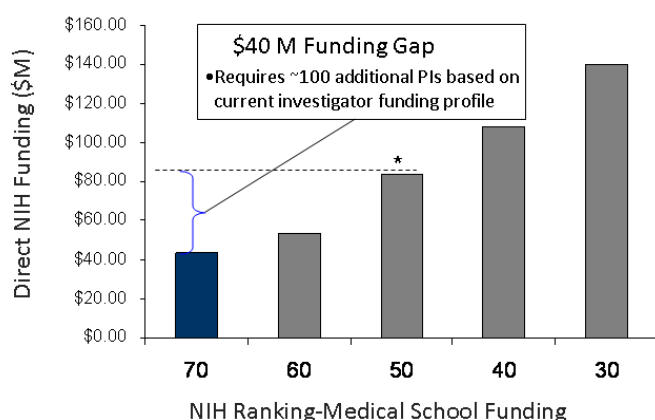


### Increased emphasis on clinical and translational research

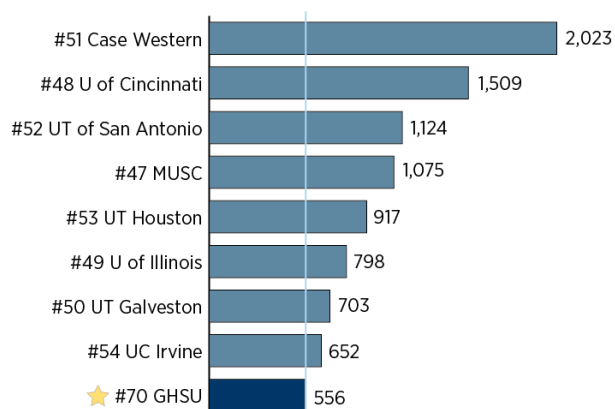
In addition to enhancing already strong efforts in the basic sciences, our vision for research at GHSU involves a much more robust clinical and translational research program, which would better position GHSU for NCI designation in the near future and to compete for a Clinical and Translational Science Award. The primary measure of our success will be breaking into the top 50 AHCs in NIH funding.

### Growth in research faculty

Medical schools that occupy the 50th spot in NIH funding (the \$80 million range) have an average of 167 basic science faculty and a ratio of basic science faculty relative to total enrollment of 23 percent. Successful institutions also have emphasized doctoral programs in addition to those at the master's level. In comparison, GHSU



### Total Full-Time Medical Faculty



has 70 basic science faculty and a ratio of basic science faculty to enrollment of 9 percent (see chart above). Clearly, moving up the ranks requires a substantial increase in capacity—approximately 100 new investigators.

Of the 100 new faculty we plan to recruit over the next three years, we expect 30 of these to be in the public health arena and at least 15 in cancer, with the remaining 55 in

cardiovascular disease (n=10), neuroscience/stroke (n=15), diabetes/inflammation (n=10), personalized medicine/genomics (n=10), and regenerative and reparative medicine (n=10). This Phase 1 expansion will require additional research square footage in the range of 85,000 square feet.

We anticipate that adding 100 researchers over the next eight years will increase our total extramural funding by \$40 million to \$50 million (see chart to left), create 800 to 1,000 new jobs in the Augusta region, generate \$4 million to \$5 million in state and local tax revenues, and produce more than 100 patents and up to 10 new startup companies.<sup>2</sup>

This strategy, if fully implemented as outlined, will result in GHSU becoming a nationally recognized AHC with established research strengths in basic and clinical research, with greater expertise in public health and emphasis on health management, healthcare delivery, and health workforce planning. This transformation will drive greater synergy and collaboration, both within GHSU and among GHSU and its partners statewide (see Table next page), with an emphasis on the acquisition of larger programmatic and center grants.

<sup>2</sup> These projections are based on metrics provided by the Bureau of Economic and Business Research, David Eccles School of Business (2009, vol. 69, num. 2).

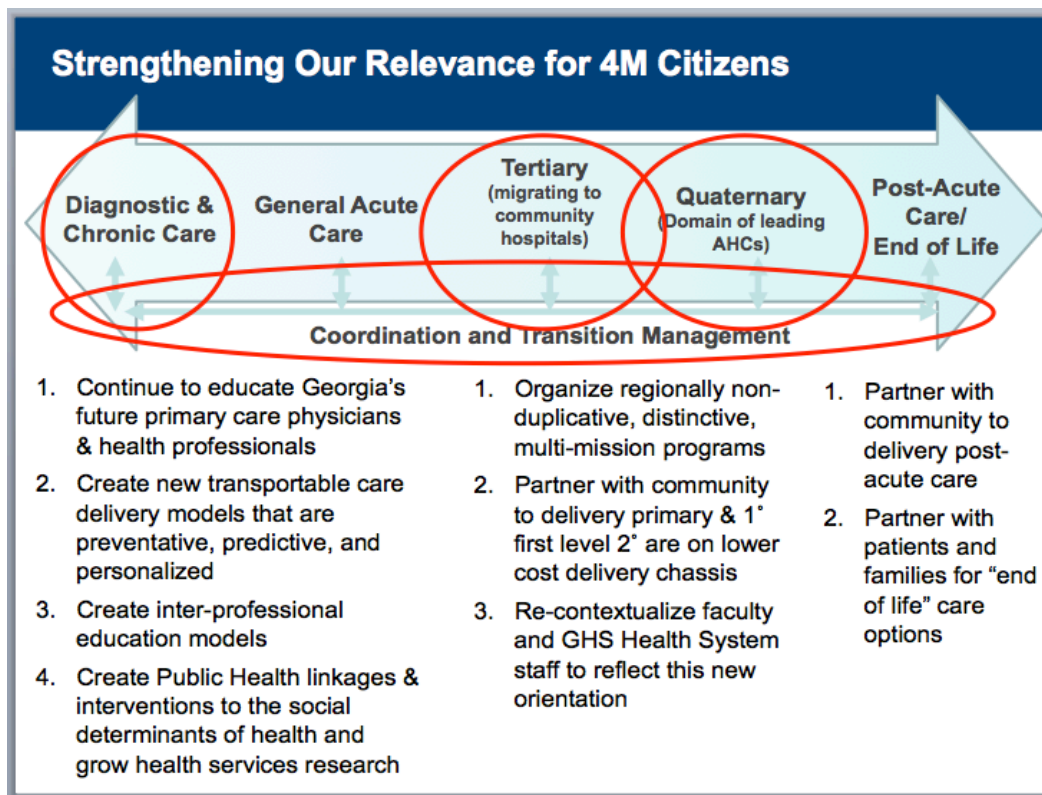


<u>GHSU Research Program</u>		<u>Partners</u>
Cancer and Radiation Biology	↔	Savannah River National Laboratory
Telemedicine & Rural Healthcare Personalized Medicine & Bioinformatics	↔	Georgia Southern University Georgia State University
Regenerative & Reparative Medicine	↔	Charlie Norwood VA Medical Center US Army Fort Gordon Georgia Institute of Technology
Childhood Obesity	↔	University of Georgia

## Healthcare: Future State

GHSU will build distinction in the traditional high acuity realm of AHCs while maintaining those areas that address the most significant problems of the day, namely the management of health and the effective delivery and coordination of care. More specifically, the clinical future state involves the following:

- **Transformation to a medical destination**—Through investments in designated tertiary and quaternary services such as cancer, cardiovascular, neurosciences, and regenerative and reparative medicine, GHSU will emerge as the provider of choice for the region for complex care.
- **Leveraging of efforts in patient and family centered care**—Continued emphasis on the GHS Medical Center’s nationally acclaimed patient- and family-centered care model will be integral to achieving the success of this transformation.
- **Commitment to interprofessional care**—Care will be provided by multidisciplinary teams of health care professionals organized into service lines designed to offer services in the context of the disease being treated.
- **Robust partnerships**—Strategic partnerships and affiliations with health systems and physician groups throughout Georgia will provide much of the referral source to ensure that all Georgians have access to the highly specialized care.
- **Strategic investment of resources**—Aligning investments with strategic aspirations and prioritizations rather than spreading limited capital and hospital operating margins into non-strategic areas.
- **Excellence in patient care**—90th percentile performance in relation to AHCs as measured by both quality performance metrics and patient satisfaction indicators and accountability for the stewardship of assets will drive the organization.



These strategies have been formulated in a manner that is mindful of the increasing pressures on revenues and expenses, noted below:

- Decreasing state appropriations, which flows through to our clinical faculty.
- Decreasing Federal support, e.g., DSH, UPL, IGT, ARRA.
- Over-reliance on prior period revenues.
- Decreasing physician reimbursement.
- Decreasing hospital patient care reimbursement.
- Record unemployment contributing in increasing bad debt and self-pay levels as employer insurance coverage lapses.
- There is a historical hidden liability from clinical underinvesting (both for faculty and infrastructure) that requires immediate investment.
- Increasing need for hospital-based services, particularly radiology and anesthesia, in a market where reimbursement is declining and physician supply is limited.
- Acceleration of electronic medical record implementation with increased amortization.

### *Clinical delivery model*

GHSU, along with the GHS Health System, is committed to providing a continuum of care for those seeking a medical home. How we will work across the continuum of care to strengthen our relevance for an expanding footprint is illustrated in the left table. An effective partnering and affiliation strategy is critical to maximizing the return on investment of GHSU's assets.



Unlike the other USG colleges and universities, GHSU must have a care delivery platform to deliver education to its trainees, education that requires a vast spectrum of experiences from preventive services to a myriad of services, from primary (OB/GYN, pediatrics, family practice, emergency medicine, etc.) to complex care (high risk OB, specialty

pediatrics, cardiology, endocrinology, metabolic disease progressions, high tech imaging, and surgical interventions) to post-acute services and end-of-life care. GHSU's education role must be front and center in every area of this spectrum.

GHSU's hands-on care delivery model should focus on the complex disease platform for medicine and the full spectrum for dental medicine. See Appendix 5 for geographic views of GHSU's current and future states with regard to delivery of complex care services. Therefore, GHSU and GHS Health System will create a hub-and-spoke high-tech care delivery platform that allows us to serve a regional population of approximately four million with linkages to other care providers who are best able to serve the primary care and first-level secondary care needs. This distributed system of care will demonstrate the adage "better, faster, less expensive." Georgia citizens will have their health care needs met on the most appropriate and highest quality care platform for the least overall cost. This repositioning of GHSU will leapfrog the state into the rarified space of using its assets to solve the impending health crisis all states face.

The GHS Health System will focus on the diseases for which Georgian's are seeking unique cures: cancer, cardiovascular, and stroke as well as the underlying pre-metabolic diseases of obesity and diabetes. By harnessing the power of hub-and-spoke partnerships, GHSU can deploy its capabilities of cutting-edge research and education across the region where primary and first-level secondary care is occurring with a health system that focuses on the high tech, high cost complexities these communities cannot reasonably duplicate. This approach will also allow us to recapture tertiary/quaternary cases that are outmigrating from their local referral regions. See Appendix 6 for a view of tertiary/quaternary outmigration by service line.

Why this focus on growing the proportion of tertiary and quaternary (complex and advanced care) patients? First, as an AHC, the role of the GHS Health System is to ensure that our trainees are fully exposed to the entire spectrum of diseases and procedures. With primary and secondary care encompassing the bulk of trainee experience at the university and through its clinical adjunct faculty, it is critical that the GHS Health System focus on enhancing their exposure to advanced and complex care cases.

Secondly, as one of Georgia's critical safety net hospitals and the state's only public AHC, the GHS Health System must ensure that it is able to provide advanced and complex care to patients, and that it can serve as backup to many rural and community hospitals and healthcare facilities and providers across the state. Thus, like all AHCs across the nation, the GHS Health System must ensure that it has the highest capability to address complex and advanced care cases affecting our citizens.

Thirdly, focusing on growing our advanced and complex care array better ensures that we are able to positively partner with healthcare providers in our community and throughout the state that generally focus on providing primary and secondary care. Thus, GHS Health System focusing on complex and advanced care will better ensure alignment and synergy between the greater health provider community and GHSU, as the state's AHC and health professions university.

Finally, it is a matter of ensuring the fiscal sustainability for GHSU. Over 30 percent of the GHSU budget arises from GHS Health System payments and transfers, most of which supports the bulk of the cost of medical education at the university. Thus the fiscal integrity of the GHS Health System is critical to the financial sustainability of GHSU and the state's medical school, MCG. Current GHSU inpatient statistics show that we return five times the hospital contribution margin on tertiary and quaternary versus primary and secondary patients. Even though the length of stay for these patients is greater and requires more resources, the current reimbursement structure more than compensates for those additional days. The hospital currently has a 17 percent tertiary/quaternary versus 83 percent primary/secondary mix, which places us lower in tertiary/quaternary care than many other hospitals/health systems in the state. See Appendix 7 for a comparison of complex and general care, including reimbursement levels. With 67 percent of current GHSU funding coming from the clinical engine, it makes financial sense to have a major focus on growing volume that returns higher margins.

In order to provide more acute care needs for complex and advanced cases across a broader region, it will be necessary that GHS Health System not "be all things to all people" nor attempt to own and control the entire continuum of care. It is important to note that GHSU is not turning its back on the need for high quality primary and first-level secondary care; however, our local and regional communities are replete with qualified providers, such as hospitals, Federal Qualified Health Centers, primary care physicians, and social services. Their specialization in front-line health care allows GHSU to partner with local providers in the delivery of this care and also to focus its resources on more complex cases.

We will enhance existing affiliations with current partners and develop new relationships with the myriad of regional partners that demonstrate the power of becoming a regional referral center on their behalf. See Appendix 8 for more detail on this approach. The clinical enterprise will further leverage its unique strength as the only large integrated multi-specialty medical group in the region and develop distinguished clinical programs that embed the full spectrum of research while improving the care experience.

According to the Association of Academic Health Centers (2007), the future growth and development of integrated healthcare delivery systems provides the structure to increase benefits, decrease financial risks, advance scientific progress, and heighten the institution's reputation and trust with the public in a more efficient and organized fashion. With the BOR's 2010 governance changes, GHS Health System is now considered a leading-edge example of an integrated system. We will look to the University Health System Consortium (UHC) and their *Quality and Accountability Top Ten Institutes* as a measure to strive towards within the next three years. The GHS Medical

Center has already made tremendous strides in quality and accountability by decreasing average length of stay and increasing the case mix index.

### ***Connection to education and research future states***

GHSU is a regional and national leader in cancer, cardiovascular, and neuroscience research. In the area of cancer research we have significantly expanded our Phase 1 trials in hematology-oncology, not only for adult but also for pediatric populations. This expanding research presence enhances our clinical presence in the region as a major cancer treatment provider.

Likewise, in cardiovascular research, our Georgia Prevention Institute (GPI) is a globally recognized leader in identifying genetic and environmental risk factors for the development of Type 2 diabetes and hypertension. In particular, the GPI has worked extensively with urban minority populations, which further expands GHSU's clinical reach within the community.

Finally, our Brain and Behavior Discovery Institute, Neuroscience Center, and Institute for Molecular Medicine and Genetics are leaders in stroke research and neurobiology. The "halo effect" for this research expertise continues to support and advance our clinical volume in neurology and neurosurgery.

GHSU and GHS Health System are a maximally integrated model of interprofessional training, education and hands-on care delivery, a model that actively demonstrates the power of these missions being aligned under the umbrella of a health sciences university.

### **Getting There: Efficiencies and Financial Goals**

As noted earlier in this report, building an AHC positioned to compete on a national and international stage will require significant investment of public and private dollars, of community support, and of effort by the organization's leadership, faculty, and staff. It also requires a significant investment in infrastructure. This section outlines the investments that will be needed to ensure that GHSU is appropriately equipped and supported to achieve the future states mapped out in the previous pages.

#### ***Facilities/space***

The current replacement value of the state of Georgia's capital investment in GHSU and the GHS Medical Center is more than \$4.3 billion. The combined capital infrastructure includes more than 40 separate structures containing 5.3 million square feet of clinical, education, and research building space on 92 acres of land. More than 60 percent of building space (roughly 3.2 million square feet) is more than 30 years old. Only 856,000 square feet has been added in the last 10 years.

The GHS Medical Center invests about \$30 to \$35 million annually to upgrade and maintain its 55-year-old hospital, related facilities, and infrastructure. GHSU spends about \$6 million annually to upgrade and renovate facilities, half of which is provided from MRR funds, the other half from unexpended plant resources generated by investment income.

To provide the education and training environment for Georgia's next generation of care providers, GHS Medical Center will construct a new, yet smaller and more focused, hospital to replace the existing 55-year-old building. The new hospital will be the initial phase for a more cohesive and integrated campus that mirrors the integrative nature of the organization and how medicine will be practiced over the next 50 years. The project will enhance the presence and aesthetics of GHS Medical Center among competition in the immediate area. The new inpatient tower will contain

seven levels of patient care space with 24 universal patient rooms on each level for a total of 168 beds. There will be separate teaching and support space on every level. In addition, the project will include expansion of surgical services with 22 new universal operating rooms, consolidation of radiologic services, and relocation of central sterilization. This project and other clinical enhancements will result in the 415,000 additional square feet of clinical space. This vision will require expansion of academic and research square footage as well:

- **Academic square footage:** 110,500
- **Research square footage:** 105,000

### ***Branding, reputation, and rankings***

We began to build a known brand and identity when we changed of the name of the institution from that of a college with associated schools to a university comprised of five colleges. Our challenge now is to build on what began with a name change.

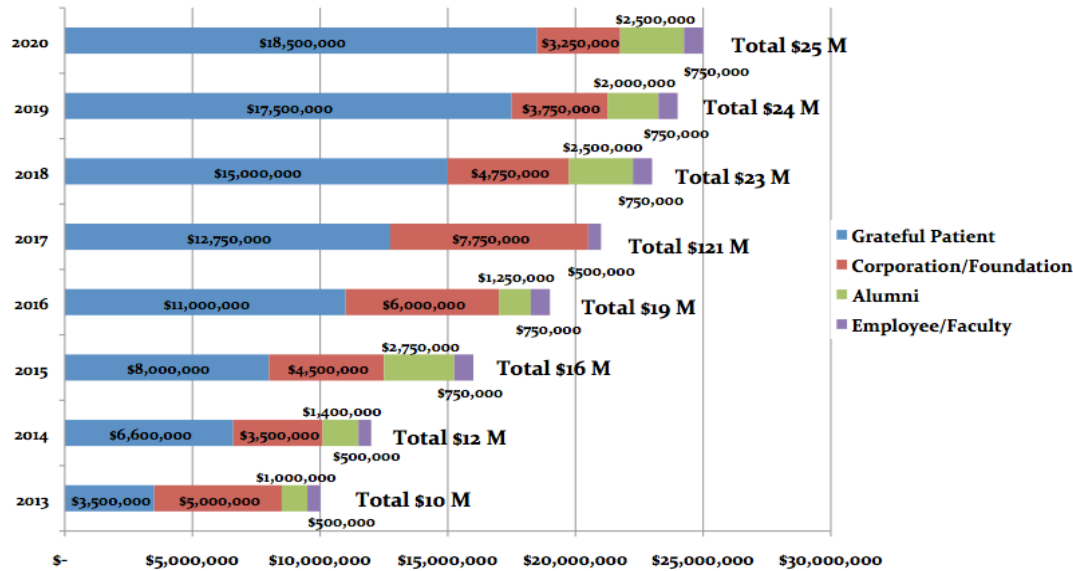
Our vision is to become a nationally and internationally known brand with a solid reputation linked to national rankings. Building a brand takes the commitment of time and resources, but a strong brand is essential to attract the best and brightest students and researchers, high achieving staff, donors (grateful patients), referral sources, and patients. Our strategy for building a solid brand includes:

- Establishment of brand standards across the enterprise with strict adherence to and legal protection of the brand, ensuring consistency in look and messaging.
- Targeted participation as presenters in conferences and forums that influence and impact behavior in a field of study, which positions us as content experts.
- Faculty and staff being published in target journals and publications acknowledged as experts in the field (e.g., medicine, research, education, leadership, etc.).
- Annual publication of reports highlighting accomplishments, e.g, in research, with targeted distribution of the reports to our peers, the ranking agencies, donors, legislators, and corporations.
- Communications that support the growth strategy directed to specific target audiences (e.g., physicians, current patients, future patients, other health care providers and partners) providing information on unique programs and services only offered through our AHC.
- Campaign tactics to reach a very diverse customer base, from incoming students who have never lived without a computer to patients and potential donors who never want to communicate through a computer.

The success of our branding will be measured through the national rankings as well as increased name recognition, increase in the number and quality of student applications, faculty and staff retention, increased donations, and increased patient volumes for targeted, publicized services.

## Philanthropy

GHSU's current average private support of \$8 million must grow to an annual average of \$25 million to meet future needs. GHSU will implement an aggressive comprehensive initiative with the aid of our volunteers and donors. Current plans call for a two-year organization period designed to ramp up excitement, group campaign cultivation events, and establish a volunteer/staff campaign solicitation model. Year-by-year targets are illustrated in figure below.



## University System and Government support

During the recent economic downturn, GHSU and the GHS Medical Center experienced a significant loss of state funding. For the university, the loss in state appropriations exceeded \$37 million, a more than 25 percent decline in three years. The GHS Medical Center lost \$3 million in state support that had been provided for graduate medical education and patient care. Our current projections assume that state appropriations allocations will remain relatively flat for the foreseeable future and require the enterprise to grow other resources to meet much of its future needs.

Among the casualties of the downturn was the loss of funding for cancer research. Six years ago, the state committed to provide \$5 million per year from Tobacco Settlement Funds to support the development of the center, which enabled the university to get operations started and develop the support infrastructure needed to make the center a success. GHSU cancer research has grown from \$9.5 million in FY 2005 to \$26.4 million in FY 2011, a nearly three-fold increase in only five years. We believe the state should reconsider the elimination of the investment in cancer research (see Appendix 9 Cancer Center position paper).

The USG BOR decision to implement a special institution fee and raise undergraduate tuition rates to unprecedented levels during the recent economic downturn was designed to aid USG institutions in dealing with dramatic reductions in state appropriations. While this benefited the majority of institutions in the system, it had little effect on GHSU's budget. Despite the BOR's approval of GHSU's requested graduate and professional programs tuition rates in the past two years, GHSU's educational budget still suffered a significant decline. For the large majority of USG institutions, the impact of the rate increases in undergraduate tuition and special fees more than offset their loss of state funding.



The experience of recent years highlights the need for a change in the way formula funds are allocated to institutions, if not in the formula itself. The decision by the Governor to review the current funding formula provides an opportunity to address the inequities of the internal revenue requirement and major flaws in the current formula model. Much has changed in the USG since the formula was put into effect 25 years ago, so that a formula overhaul is long overdue.

GHSU continues to increase its engagement with local, state, and federal stakeholders and partners. It is essential to establish, sustain, and strengthen relationships with government leaders and agencies that have direct impact on GHSU operations and can assist in advancing the mission and strategic plan. Working in partnership with state and federal partners, GHSU will:

- Identify sustainable and predictable state and federal funding for strategic investment in GHSU initiatives.
- Explore state and federal administrative and statutory policy that is favorable to GHSU, e.g., Medicaid, contracts, participation agreements.
- Increase faculty and alumni advocacy efforts.
- Increase communication efforts that support the mission and strategic legislative agendas.

### **Community support**

In 2008, the city of Augusta, working in conjunction with federal housing officials and university administrators, negotiated the transfer of the 15-acre Gilbert Manor property to the university, which involved the closure of the housing project located on that site. This gift from the city, valued at \$10 million, including roughly \$3 million for the purpose of demolition and site development, enabled the university to plan the development of, and obtain approval for, the new College of Dental Medicine and Education Commons. While city support has not been as robust as desired over the long haul, recent investments and shows of support demonstrate that the city officials understand the importance of the university to local economic development.

As an anchor institution of the city of Augusta, GHSU's vision must be advanced in close alignment with the community's vision. In recent years, numerous efforts have been undertaken to articulate a vision for the broad community and more focused subsets of the region. The outcomes of these visioning efforts—*sound attempts to address the question of what our community will look like in the future*—are summarized in Appendix 10. In combination, these plans envision the Augusta of the future as a safe, green, smart, prosperous, cooperative, and healthy community—a vision that leaves much room for significant contributions from GHSU in light of our tripartite mission of education, research, and clinical care.

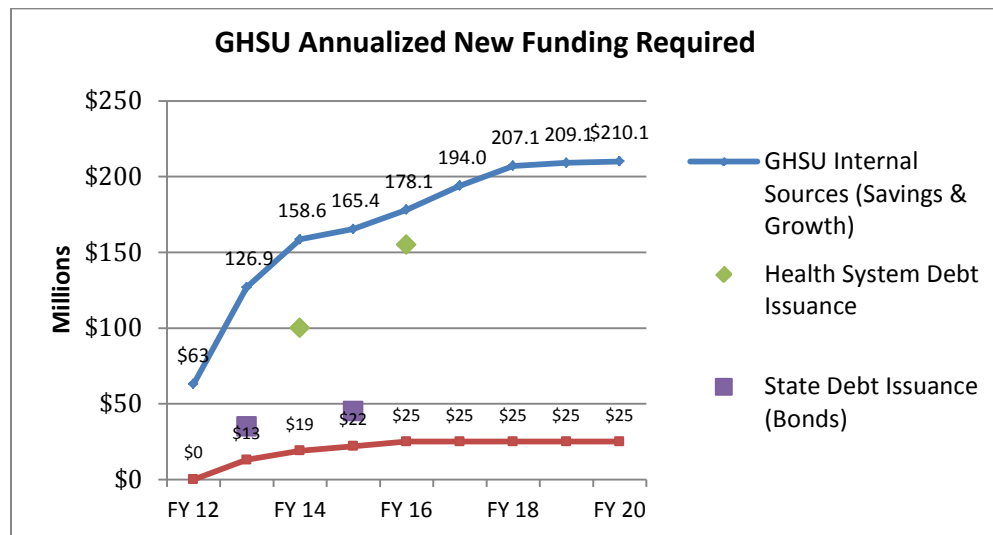
GHSU continues to be actively engaged with the city of Augusta on the future development of the campus and medical center. Ongoing discussions with city officials are occurring on issues ranging from the redesign of the Laney-Walker Boulevard corridor to student housing and, more recently, the opportunity to collaborate on the financing of a new facility for the Institute for Public Health. As we plan new growth in the region, it is vitally important that we work in close partnership with local leadership and residents.



## Financial plan

The financial plan associated with this vision is best summarized as follows:

- **During the next two fiscal years:** Make the adjustments in core operations plus pursue very selected tactical initiatives that will serve to bolster our operating margins and annual cash flow to, in turn, provide the financial strength to accommodate significant reinvestments during the years after FY2013.
- **Over the ensuing four fiscal years:** Between FY2014 to FY2017, make significant strides in growing the clinical, educational, and research enterprise through the implementation of a series of carefully designed and sequenced strategic and programmatic initiatives.
- **Over the final three-year period:** Between FY2018 to FY2020, complete and continue the work underway in the prior four-year period.



Through bold and aggressive recontextualization strategies, GHSU will generate the vast majority of dollars required to fuel the growth and expansion of the state's only public AHC. **Total eight-year new investment required from state sources over and above continued annual allocations represents less than 13 percent of total \$2.03 billion required: \$80 Million in two general obligation bond offerings and \$179 million over 8 years in recurring state support for cancer research and supplemental formula funding.** Graphic representation and a detailed overview of the types of investments needed follows (see Appendices 11 and 12 for details):

Sources of Funding*	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Total
<b>RECURRING</b>										
<b>INTERNAL RECURRING</b>										
- Clinical	\$61.0	\$103.9	\$142.2	\$133.1	\$130.3	\$130.5	\$130.8	\$130.8	\$130.8	\$1,093.4
- Philanthropy	\$2.0	\$17.0	\$4.0	\$8.0	\$11.0	\$13.0	\$14.0	\$16.0	\$17.0	\$102.0
- Tuition	\$0.0	\$1.5	\$2.4	\$5.3	\$6.8	\$9.5	\$11.3	\$11.3	\$11.3	\$59.4
- Research	\$0.0	\$4.5	\$10.0	\$19.0	\$30.0	\$41.0	\$51.0	\$51.0	\$51.0	\$257.5
<b>Total: Internal</b>	<b>\$63.0</b>	<b>\$126.9</b>	<b>\$158.6</b>	<b>\$165.4</b>	<b>\$178.1</b>	<b>\$194.0</b>	<b>\$207.1</b>	<b>\$209.1</b>	<b>\$210.1</b>	<b>\$1,512.3</b>
<b>STATE RECURRING (requested)</b>										
- Cancer Research	\$0.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$80.0
- Ongoing Supplemental unding**	\$0.0	\$3.0	\$9.0	\$12.0	\$15.0	\$15.0	\$15.0	\$15.0	\$15.0	\$99.0
<b>Total: State</b>	<b>\$0.0</b>	<b>\$8.1</b>	<b>\$13.1</b>	<b>\$16.1</b>	<b>\$19.1</b>	<b>\$19.1</b>	<b>\$19.1</b>	<b>\$19.1</b>	<b>\$19.1</b>	<b>\$179.0</b>
<b>DEBT FINANCING</b>										
<b>INTERNAL (GHS MED CTR)</b>								<b>Total GHSMC Debt</b>		<b>\$255.0</b>
- Clinical Capital Projects			\$100.0		\$155.0					
<b>STATE GO BONDS (requested)</b>								<b>Total State Debt</b>		<b>\$80.0</b>
- Ed. Commons Bldg		\$35.0								
- Research Bldg				\$45.0						
<b>Total: Debt</b>	<b>\$0.0</b>	<b>\$35.0</b>	<b>\$100.0</b>	<b>\$45.0</b>	<b>\$155.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$335.0</b>
<b>Total: All Sources</b>	<b>\$63.0</b>	<b>\$174.9</b>	<b>\$277.6</b>	<b>\$232.4</b>	<b>\$358.1</b>	<b>\$219.0</b>	<b>\$232.1</b>	<b>\$234.1</b>	<b>\$235.1</b>	<b>\$2,026.3</b>

\* In millions

\*\* State formula funding changes that bring balance and greater equity for GHSU, over and above current annual allocation

During the period July 1, 2011 to June 30, 2013, GHSU intends to pursue, complete, and/or make steady progress on an array of initiatives (see Appendix 13 for complete list) that, if properly executed, avert the possibility of a declining operating margin and bolster the long-term financial viability of the enterprise. Left unattended, leadership has projected that FY2012 operating margins could potentially turn negative.

There is no intent, however, to let a hypothetical scenario unfold. GHSU is making strategic decisions around labor and non-labor expenditures for FY2012, to ensure that operating margins remain in the black as they have for the past 12 years. The projected financial impact of these strategies is:

- Replenishment of operating cash reserves utilized during FY2012 and FY2013.
- Generation of a heightened level of annual cash flow starting with FY2014, thereby ensuring support of cash flow needs associated with future investment and growth in research and clinical care activities.

The measured impact of these collective strategies would be to **deliver reinvestment capacity** to support the following activities:

<b><i>Fiscal Years 2012 and 2013</i></b>	<b><i>Fiscal Years 2014 to 2017</i></b>	<b><i>Fiscal Years 2018 to 2020</i></b>
<i>Recruit Key Cancer Center Director &amp; Senior Leader for Research</i>	<i>Complete Research Building A</i>	<i>Build Replacement or New Parking Deck</i>
<i>Obtain Financing for &amp; Build Education Commons Building</i>	<i>Build Moderately Sized Administrative Commons Facility</i>	
<i>Expand Referral Networks &amp; Affiliations for Complex Cases</i>	<i>Complete "Faculty Recruitment 31" Program</i>	<i>Continue Recruitment of The Best Available Faculty in Selected Areas of Emphasis - Tertiary &amp; Quaternary</i>
<i>Start Design Plans for Infrastructure &amp; Facilities to Manage More Complex Cases</i>	<i>Complete Recruitment of 100 Clinical &amp; Basic Scientists</i>	
<i>Recruit Clinical &amp; Basic Scientists to Fill Capacity in the Cancer Research Center</i>	<i>Continue Aggressive Build of Referrals Aligned with the Clinical Repositioning Strategy</i>	<i>Continue to Strengthen Relationship with Affiliates/Partners - Ongoing</i>
<i>Begin to Recruit Clinical &amp; Basic Scientists for New Research Facility</i>	<i>Build Hospital Ancillary Tower to Support Clinical Repositioning Strategy</i>	<i>Aggressive Marketing for Complex Care</i>
<i>Complete Expansion of Bone Marrow Transplant Service</i>	<i>Complete New Space for Institute of Public Health</i>	
<i>Rebuild Surgery Program &amp; Faculty &amp; complete the Digestive Disease Center</i>		
<i>Build Space to Meet Transitional Needs for Institute of Public Health</i>		

In addition to these particular items, GHSU will continue to make annual investments for regular capital expenditures of roughly \$30 million to \$40 million per year. GHSU leadership will closely monitor economic developments to ensure that its future financial viability is maintained. It is conceivable that reinvestment levels will be lower than the above-stated plans due to the gravity and number of uncertainties surrounding the general economic environment, the healthcare and education industry, and the fact that competitive forces will weigh against the planned initiatives in several respects, bringing somewhat less than desired results.

## ECONOMIC IMPACT AND RETURN ON INVESTMENT

According to a recent study by Tripp Umbach, a nationally recognized market research firm that specializes in economic impact studies, GHSU has a \$2.1 billion direct annual economic impact on the Georgia economy. (See Appendix 14 for complete report.) Over eight years, this vision can **increase GHSU's direct annual impact to \$3 billion**. Additionally, this plan generates significant spillover economics due to research that imports additional federal and industry research dollars and also is supported by extensive clinical revenues.

			Actual 2010	Projected 2020	Projected Change
Total Revenues	Enterprise	Growth in enrollment, research, and clinical volume	\$1.16 Billion	\$1.64 Billion	\$0.48 Billion
Student Enrollment			2438	3048	610
Research FTEs and NIH Funding			100/\$40M	200/\$90M	100/\$50M
Economic Impact		\$2.1 Billion was estimated impact when GHSU Enterprise revenues were \$1.16 Billion	\$2.1 Billion	\$3.0 Billion	\$0.9 Billion

In addition to generating a very tangible economic return, GHSU also generates jobs for Georgians. We are currently one of Georgia's top 20 employers and the second largest employer in the Augusta region, directly providing jobs to some 10,000 individuals and generating another 50,000 jobs across the state—the approximate equivalent of the combined population of three of our neighboring counties. These economic benefits will increase as we advance our vision for 2020; the doubling in research faculty and NIH funding alone is projected to:

- Create 800 to 1,000 new jobs<sup>3</sup>.
- Generate \$4 million to \$5 million in state and local tax revenues<sup>3</sup>.
- Produce more than 100 patents and five to 10 new spinoff companies<sup>4</sup>.

Furthermore, as a health sciences university, GHSU has the potential to leverage its research assets in collaboration with local communities to create public-private ventures such as biotechnology parks. A biotech park is a type of industrial park that specializes in biotechnology and scientific research on a business footing. Biotech parks can serve as economic engines for a community, particularly when the community has the appropriate biomedical research infrastructure in place. As described in Appendices 15 and 16, Augusta, as home to GHSU and a thriving medical community, is well positioned for this type of development. Other communities around the state in which GHSU expands its research presence as part of its enhanced statewide footprint could likewise be candidates for such development. Affiliating with a university focused on biomedical research is a critical success factor in these endeavors as the university brings the necessary research infrastructure and intellectual and human capital needed to attract biotech businesses.

GHSU, as Georgia's only public AHC, is the state's solution center by two primary means:

- Through tremendous economies of scale (GHSU's distributed AHC networks span the state).

<sup>3</sup> Based on metrics provided by Bureau of Economic and Business Research, David Eccles School of Business, University of Utah (2009, vol. 69: num. 2).

<sup>4</sup> Projection based on number of patents and new companies at current funding level.

- Through its innovative enterprise redesign (GHSU can lead collaborations connecting USG colleges and universities, TCSG institutions, and Georgia health care networks by innovative academic capitalism methods).

This approach puts appropriate focus on strategic strengths that allows GHSU to tackle fundamental health care and research needs and highly specialized health science research by better leveraging long-term investments. We recognize that, as a state entity, our efforts, while focused on the public good, are ultimately about the economy and GHSU's relevance for generating Georgia's wealth—health, jobs, and prosperity—as we move forward. If we advance this vision, GHSU will be well-positioned to emerge as the next great American AHC, bringing substantial benefits, both financial and otherwise, to the great state of Georgia.

## 8-YEAR VISION-PLAN SUMMARY

Following are summarized the suggested goals and objectives of the above 8-year plan to ensure greater excellence and growth in the health professions and medical education in Georgia, and for GHSU, the state's public AHC and health professions university:

### A. Educational Goals:

1. Utilize a hub-and-spoke model for advanced health professions education, expanding partnerships to enhance student enrollment and educational delivery.
2. Determine optimum structure for the state's only public AHC.
3. Achieve a strategic 25 percent graduate enrollment increase across an evolving academic program array.
4. Focus strategic faculty increases to support academic program growth and maintain accreditations.
5. Align the academic program array to state workforce needs.

### B. Research Goals:

1. Move medical school into the top 50 in research funding by:
  - Doubling our research funding from the NIH.
  - Recruiting 100 net new research faculty.
  - Building Georgia's second NCI-designated cancer center.
  - Increasing our research space to accommodate new faculty.
2. Expand our economic impact through increased commercialization of research discoveries.

### C. Healthcare Goals:

1. Increase advanced and complex clinical services.
2. Achieve top performance in quality for AHCs.
3. Create a broader regional footprint through expanded partnerships.

### D. Efficiencies and Financial Goals

1. Diversify revenue sources and support from non-state and private sources.
2. Increase efficiencies.
3. Increase direct annual economic impact.

The above makes a compelling case for focusing state resources on the building of a single strong public AHC for the state of Georgia, one well positioned to meet the health professions education needs of the state through both hub-and-spoke and distributed educational delivery models, leveraging both existing and new, innovative partnerships.