

Press Release

Socio-economic impact study: Medical school producing huge community benefits

OUR IMPACT ON OUR COMMUNITIES

Highlights from the 2010 socio-economic impact study prepared for the Florida State University College of Medicine by MGT of America Inc.

FACTS AND FIGURES

- Overall, the College of Medicine occupies 376,000 square feet of space (counting all of the regional campuses).
- It has affiliation agreements with 46 hospitals that collectively encompass more than 8,000 acute-care beds. It also has affiliation with 45 county health departments, clinics and similar organizations.
- It has approximately 115 full-time faculty members on the main campus in Tallahassee and approximately 1,700 part-time clinical faculty members across the state.
- The faculty members are supported by more than 500 full- and part-time technical and support staff.
- Enrollment reached full capacity in May 2010. The first class of approximately 120 students is scheduled to graduate in May 2011.
- So far, the college has produced 336 graduates with the M.D. degree.

MISSION FULFILLMENT

- Ten years after its legislative authorization, the FSU College of Medicine is a clear success. It has now reached its full enrollment capacity and will be producing a steady stream of new physicians for the state.
- It has effectively fulfilled the mission that was envisioned for the new medical school when it was established by state leaders. It has outperformed its state and national peers on many measures related to primary care, elder care and attention to the needs of medically underserved populations.

PRACTICING IN FLORIDA

- Of the 27 members of the first graduating class in 2005, 22 have completed residency/fellowship training and entered practice (more than 81 percent). Of those who have completed residency, 14 (nearly 64 percent) are now practicing in Florida. The percentage capture rate is highest among the state's medical schools and is more than 1.6 times greater than the national average of 39 percent for in-state retention of medical school graduates.
- Of the 51 College of Medicine graduates who are known to have completed residency, 34 (or 67 percent) are practicing in a primary care specialty. Most important, 24 of these primary care physicians are practicing in Florida.

PRIMARY CARE

- ✎ When they were asked [on the AAMC's Matriculating Student Questionnaire] about career plans when they entered the program, 49 percent of College of Medicine students indicated the intent to pursue a primary care specialty upon graduation, compared with only 43 percent of their national peers. The College of Medicine had admitted students who were about 14 percent more likely to pursue primary care medical careers than new students starting at other medical schools.
- ✎ In the most recent match (March 2010), 56 percent of the College of Medicine's graduating class selected to pursue residency training in primary care, compared with only 43 percent nationally and 42 percent in other Florida medical schools. Throughout its history, 55 percent of the College of Medicine's graduates have pursued residency in primary care – a proportion that is 25 percent greater than the national proportion over the same period.

GERIATRICS

- ✎ The College of Medicine has a separate Department of Geriatrics, one of only a few in the United States.
- ✎ College of Medicine students receive extra training with seniors in the continuum of doctoring courses as well as through the required geriatrics clerkship. As a result, they average 325 contact hours training in the diagnosis and treatment of elders – an exposure significantly higher than students in typical programs elsewhere.

RURAL HEALTH CARE

- ✎ Fifty-seven students from rural counties have enrolled in the College of Medicine over the past 10 years, accounting for 6.9 percent of all entering students. This compares with a 6.3-percent statewide representation of college-aged population from these same rural areas.
- ✎ Thirteen percent of 2009 matriculants at the College of Medicine indicated their plan to practice in a non-suburban community with population of 10,000 or less, compared with 5.1 percent of their counterparts nationally.
- ✎ Of the 51 College of Medicine graduates who have completed residency training and entered practice to date, seven (14 percent) are practicing in a predominantly rural area in Florida. Numerous others are in practices with significant numbers of rural patients.

RACIAL AND ETHNIC DIVERSITY

- ✎ Of the recently matriculated 120-member Class of 2014, approximately 20 (one-sixth of the class) were enrolled as a direct result of one of the College of Medicine outreach programs and contribute to a much more diverse student body.
- ✎ Over its 10-year history, 10 percent of College of Medicine students have been African-American and 16 percent Hispanic. The proportion of African-American and Hispanic students at the college far exceeds their representation in the state medical community and mirrors the overall mix of the state population more closely than most other professional schools. The representation of racial and ethnic minorities among the student body significantly exceeds their presence among Florida's current M.D. population.

CARING FOR THE UNDERSERVED

- ✎ Full-time physician faculty members provide care to underserved populations at local facilities, including assignments at the local community health center, rural Department of Health facilities, a school-based health center and a domestic violence center. These sites also serve

as clinical locations for first- and second-year students throughout the state to reinforce clinical skills and gain experience in caring for the underserved.

- ✦ Once students begin clerkships in the third year of the curriculum, the emphasis continues with students developing their understanding of and skills for meeting the medical needs of underserved populations. In particular, the third-year, three-week Community Medicine Clerkship is required for all students at the regional campus sites and is designed to broaden students' understanding of the role played by community agencies in health promotion and disease prevention. Other opportunities include multiple rotations at the Immokalee Health Education Site, which draws much of its clientele from migrant populations.
- ✦ Also, College of Medicine faculty members sponsor trips to Panama and the Texas border through the student organization FSUCares to deliver health care to people who have little or no access to medical care.

ECONOMIC IMPACT

- ✦ More than \$503 million has been expended by, or on behalf of, the college or its affiliates since its inception in 2000-01.
- ✦ Annual expenditure levels reached nearly \$73 million in 2009-10, while still operating 26 students short of full capacity.
- ✦ Based on the most recent year's (2009-10) estimates, more than \$160 million in impact will occur on an annual basis each successive year of full-capacity operation.
- ✦ The most recent budget data (2010-11) suggest ongoing impacts at levels exceeding 2009-10 levels, particularly considering planned expansions to the research program (estimated to grow three times over in five years, and up to five times its current levels in 10 years).
- ✦ The cumulative investment into state and local economies over the first 10 years of College of Medicine operation is estimated to have exceeded \$1 billion.

TAXPAYER RETURN ON INVESTMENT

An assessment of resource investments often entails an analysis to determine the return that is experienced on those funds. It can be demonstrated that state taxpayers' contributions toward operation of the College of Medicine have yielded extremely fruitful results. The most recent accounts of operations include the following:

- ✦ The College of Medicine received about \$39 million in public funds toward its operations in 2009-10.
- ✦ The total economic impact for this same period totaled nearly \$161 million.
- ✦ The annual return on investment (total benefits divided by funds invested) amounted to over 410 percent, exclusively in terms of economic benefit.

TOTAL EXPENDITURES AND STATEWIDE ECONOMIC IMPACT

CAMPUS	2009-10 ACTIVITY		10-YEAR CUMULATIVE	
	Expenditures	Impact	Expenditures	Impact
Tallahassee	\$56,963,958	\$99,159,128	\$426,465,920	\$746,737,526
Orlando	\$3,481,998	\$6,932,978	\$20,128,117	\$40,201,801
Pensacola	\$3,345,139	\$6,278,903	\$20,206,393	\$37,474,220
Sarasota	\$3,104,784	\$5,403,123	\$13,310,675	\$23,368,627
Daytona Beach	\$3,034,925	\$5,367,551	\$11,592,412	\$19,253,571
Fort Pierce	\$2,891,580	\$4,352,887	\$11,445,498	\$17,330,193

(JUNE 2010 CONSTANT DOLLARS)

Source: Florida State University College of Medicine Finance and Administration; assorted multipliers embedded in impact calculations per Bureau of Economic Analysis, RIMS II

FUTURE ECONOMIC IMPACT

- ⌘ Based on the most recent expenditures (approaching \$73 million) and estimates of statewide impact, the College of Medicine can be expected to contribute more than \$160 million per year to the statewide economy, including \$100 million in the Tallahassee market and in excess of \$5 million in each of the regional campus markets. The activity totals nearly \$1 billion every six years.
- ⌘ Realistically, this likely represents an underestimate, as it does not account for the potentially substantial increases in research funding and activity anticipated in coming years.
- ⌘ Additionally, as the college's graduates begin to bolster Florida's physician work force, substantial benefits could be experienced by the state and campus localities in terms of economic development. The additional contingent of highly skilled professionals working throughout the state increases personal income levels and allows for more dollars to be retained as patients are able to seek treatment locally rather than outside the region or state. Furthermore, the locales become more attractive options for health care and related research businesses, as well as individuals and businesses from broader industries, based on quality-of-life enhancements resulting from the improved health-care infrastructures.

STUDENT SATISFACTION

Compared with their counterparts in other allopathic medical schools across the nation, College of Medicine graduates are significantly more satisfied with their educational experience. Data from the AAMC Graduation Questionnaire for the Class of 2009 (the most recent version available) reveal that the average response from College of Medicine graduates was higher than the national average on 117 of 125 key survey items relating to basic science instruction, clinical clerkships, and professional skills development.

- ⌘ The mean response for College of Medicine graduating students was higher than the national average for 18 of 19 items that addressed satisfaction with the content and structure of basic science courses and their value in preparing for clerkship training, and the overall mean score across all items was 10 percent above the average of counterparts nationally.

- For the 51 items related to clerkship experiences, College of Medicine graduating students were again much more satisfied. Their average response was more positive in all but five instances. Four of those five were related to the quality of instruction provided by residents and fellows, which is not a key part of the College of Medicine instructional delivery model (unlike at most schools). Again, the mean response for clerkship experiences for the College of Medicine was 10 percent more favorable than the national average.
- College of Medicine graduating students were even more positive about their experiences in medical school when responding to the 47 items related to the development of a variety of doctoring and professional skills. Their overall mean response was 13 percent above the national average; they rated 45 of the 47 responses higher than their national peers.
- Seven items on the questionnaire related to instruction in caring for elders, a special focus of the College of Medicine mission. The College of Medicine response was more positive in every instance, and the mean response was 13 percent above the national average.

STUDENT PERFORMANCE

- Evidence of the strong performance of the College of Medicine instructional program also can be found in the performance of its students on the U.S. Medical Licensing Examination (USMLE). The USMLE is composed of different assessments conducted at various points in a student's educational program. Step 1, which occurs at the end of the second year, assesses student knowledge of the basic sciences and ability to apply key concepts to the practice of medicine. Step 2 CK assesses clinical knowledge early in the fourth year. This assessment classifies test items along two dimensions: disease category and physician task. Step 2 CS, which also occurs early in the fourth year, assesses clinical skills through observation of student interactions with simulated patients.
- The mean Step 1 score for College of Medicine students in the Class of 2011 was 218, compared with the national average of 221. Their performance is well above the 188 score necessary to "pass." College of Medicine students had a 96-percent pass rate on first attempt, compared with 94 percent nationally. All College of Medicine students attained a passing score on a retake of the exam.
- A 218 mean score may appear to reflect only average outcomes. However, College of Medicine results were higher than predicted based on national norms for entering students. Because of its efforts to admit students most likely to serve in rural and underserved areas, the College of Medicine accepts students with lower-than-average Medical College Application Test (MCAT) scores. Based on the strong positive correlation between MCAT scores and USMLE test scores, the predicted response for College of Medicine test-takers was only 211. That is, the training received during the first two years of the College of Medicine curriculum has enabled its students to perform significantly better than expected.
- The value added by the College of Medicine curriculum is even more apparent in Step 2 CK results. The Class of 2010 had a mean score of 230, just above the national average of 229. When considering the performance of these same FSU students on the MCAT exam several years earlier, their expected performance was only 214. All test-takers in the Class of 2010 passed Step 2 CK. This pattern of significantly higher-than-predicted performance for College of Medicine students on Step 2 CK has prevailed since the second graduating class.
- The Step 2 CS assessment results are reported using a "pass-fail" designation and not a numeric score, so fewer comparisons are possible between the performance of the College of Medicine and all medical schools nationally. In the six years of USMLE testing at Florida State, 99 percent of students passed Step 2 CS on the first attempt, compared with 96 percent of all U.S. and Canadian students and 83 percent of international students.

GRADUATE MEDICAL EDUCATION

- Directors of residency programs not only observe the strong USMLE scores attained by applicants from the College of Medicine but also openly express their satisfaction with the strong on-the-job performance of those graduates in their residency programs. As a result, residency program directors now actively recruit College of Medicine students for their programs. One faculty member observed that “FSU has gone from unknown to sought after in residency placements” in its first few years.
- Two metrics demonstrate the College of Medicine’s success in preparing its students for graduate medical education – the ability of students to match with programs of their choice and their performance in their residency program. On the most recent residency program Match Day in March 2010, all College of Medicine students matched. This 100-percent overall match rate compares with the national rate of 93 percent.
- College of Medicine students exhibit superior performance while serving in their residency. Among the charter Class of 2005, the only class in which a majority of its members have completed residency training, 30 percent served as “chief resident,” generally considered the strongest performer in his or her cohort. College of Medicine graduates are attaining this leadership recognition at a rate far higher than predicted.

STUDENT COMMENTS

These are paraphrases of comments students made during interviews with MGT of America Inc. Though they may not be accurate word for word, they faithfully reflect the intent of what was said.

1. Extensive patient contact on campus during Years 1 and 2 of the program made the third-year clerkships more productive for me.
2. The Clinical Learning Center and standardized patients on the main campus are critical to student success in clinical training on the regional campuses.
3. The community learning environment helps us prepare to function as a team.
4. The FSU College of Medicine model fosters community building instead of competition.
5. I had an amazing OB experience with 10 deliveries and 40 assists.
6. I have had more hands-on opportunities than my counterparts at other medical schools.
7. The community faculty members are very impressive – they are great doctors, brilliant, want to teach, and embrace their roles in helping us.
8. Working one-on-one with individual practitioners during Year 3 has helped me realize there are many different strategies for blending professional and personal life.
9. The "quality time" I am able to spend with faculty is key to the success of the FSU College of Medicine model.
10. As an FSU College of Medicine clerk, I am functioning at the same level as residents trained elsewhere.
11. When a student from a well-known private medical school came to Pensacola for one of his clerkship rotations, he told me his experience here was more productive than anything at his home institution.
12. In sitting for the USMLE clinical skills assessment with students from other schools, I found I had logged far more hours working with patients than my counterparts.

CLERKSHIP FACULTY COMMENTS

These are paraphrases from interviews with MGT of America Inc.

1. Based on my prior teaching experience at another medical school, I can tell you that the FSU model should be the model.
2. Third- and fourth-year students from the FSU College of Medicine are ahead of residents I have worked with elsewhere.
3. FSU College of Medicine students are “nicer human beings” than I find at other schools.
4. I wish I had been provided the same opportunities when I was a medical student.
5. Serving as an FSU College of Medicine faculty member has contributed to improvements in the quality of health care in my community.
6. Access to the FSU College of Medicine e-library has enhanced my ability to provide up-to-date, evidence-based diagnoses and medical care.
7. Students have elevated the appreciation for and use of technology in private practices where they have been assigned.
8. With the encouragement of their students, faculty members now practice evidence-based medicine.
9. Physicians are proud to serve on the FSU faculty and overtly make public their appointment on websites.
10. Faculty members feel they have now gone to medical school twice, and learned more the second time.
11. Patients are impressed their doctor is good enough to be a faculty member.
12. Working with students is like a shot of adrenalin.

COMMUNITY BOARD COMMENTS

These are paraphrases from interviews with MGT of America Inc.

1. The regional medical campus is a tremendous asset for our community (Daytona Beach).
2. The FSU College of Medicine is a big factor in our community’s efforts to reverse its brain drain (Pensacola).
3. It is prestigious for our community to be a site for a medical school (Tallahassee).
4. The Torrey Pines Institute for Molecular Studies knew an FSU College of Medicine campus was coming to town when they made a decision to come to the region (Fort Pierce).
5. Our hospitals around Fort Pierce are now talking about starting residency programs; the College of Medicine expanded their vision about the value of hospitals in medical education.
6. The College of Medicine was the catalyst for Florida Hospital Orlando to expand from three to seven residency programs.
7. We expect to hire many College of Medicine graduates in the future.
8. Many recent College of Medicine graduates have standing job offers to return to our community to practice when they complete residency training.
9. When new physicians come to town, they immediately inquire about and make known their interest in academic appointments.
10. The College of Medicine was able to get the two big hospitals in town to work together for the good of the community.
11. I am absolutely convinced that quality of care has increased in our community since the FSU regional medical campus was established.
12. The new doctors being attracted to our community due to the FSU campus are of the highest caliber – this is more than a work force issue, it is being able to recruit the best of the best.

IMPACT ON OTHER FSU PROGRAMS

- » Medical schools are recognized for having rigorous academic admission standards, and high school seniors interested in medical careers are already thinking about how to gain a competitive edge in the medical school application process when they select their undergraduate institution. One factor they consider is whether their potential undergraduate universities also offer medical education, in hopes that they can establish valuable contacts through faculty references and undergraduate research opportunities that will help in medical school admission. This factor can be seen in the quality of the FSU freshman class since the establishment of the College of Medicine.
- » At the same time that the quality of the incoming freshman class was increasing, the proportion of students declaring a major in programs generally considered to be pre-med also increased. The programs in the life and natural sciences attracted approximately 10 percent of freshman majors in 2000 and nearly 16 percent in 2010. Interestingly, the number of majors in all other disciplines was almost the same in fall 2009 as in fall 2000, meaning that the pre-med majors absorbed all the growth in first-time freshmen at FSU.
- » The College of Medicine's impact on university-wide research performance has been significant with the arrival of full-time faculty members at the medical school, particularly in the past five years. Total sponsored research funding for College of Medicine faculty members has grown from \$3.7 million in FY 2004 to \$10.6 million in FY 2009. On the basis of research funding per full-time faculty member, the College of Medicine's performance is especially impressive. Compared with other schools and colleges at FSU, the research funding per faculty member for the College of Medicine ranks second highest. Of particular note, approximately 30 percent of the increase in overall research funding at FSU over the past five years is attributed to the College of Medicine.

To get a copy of the full MGT report, e-mail doug.carlson@med.fsu.edu.