

## South Florida's colleges provide an economic jolt to the region

By Michael Vasquez

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CHARLES TRAINOR JR / MIAMI HERALD STAFF

Jose Corral and Dr. Octavio Martinez work with cultures in the microbiology lab at the UM Life Science & Technology Park.

Construction has long been a staple industry in South Florida, but the Great Recession and its associated housing crash made building cranes a rare sight in recent years. At the same time, unemployment among all economic sectors has hovered near record highs.

But at the University of Miami, Miami-Dade County's second-largest private employer, the past few years have included both a burst of hiring and some serious shovel-digging. Higher education is generally in greater demand during any prolonged economic slump, and UM's vitality was also boosted by its large healthcare footprint — even in down times, people get sick, and have to see the doctor.

The resulting statistics are eyebrow-raising: UM has boosted its payroll by more than 30 percent since 2007, to a total of more than 13,800 employees. That's more than the Miami-Dade workforce of companies such as Publix, American Airlines, and Florida Power & Light Company.

The university has also built or is in the process of building a new biotech research building, an expanded athletic center, a new student activity center, and a new research facility at the Rosenstiel School of Marine & Atmospheric

Science.

"We weathered the economic storm pretty well," said Joe Natoli, UM's chief financial officer. "We didn't have significant layoffs."

As South Florida slowly regains its economic footing, the importance of the region's many colleges and universities — both as a workforce training tool and as its own stand-alone industry — has come into sharper focus. Miami-Dade and Broward counties together have hundreds of thousands of students pursuing undergraduate and graduate degrees, with local colleges

employing well over 40,000 people. Together, this represents a critical mass of higher learning that rivals many other U.S. cities.

What South Florida doesn't have is a widely-recognized "brand" as a hub of higher education and innovation — not yet, anyway.

In addition to UM, there is Florida International University, a state university quickly growing in enrollment and importance. With roughly 46,000 students, FIU already ranks among the 25 largest public universities in the nation, and the school plans to add an additional 10,000 students over the next five years.

Miami Dade College, meanwhile, boasts a student population of 176,000-plus, making it the largest institution of higher learning in the United States. FIU and MDC are the sixth and seventh-largest public employers in the county, respectively, ranking just ahead of the city of Miami, which comes in at number eight.

Across the county line, Broward College is a massive community college in its own right, with more than 64,000 enrolled. Davie's Nova Southeastern University is more focused on graduate education than undergraduate degrees, but nevertheless enrolls a sizable student body of more than 28,000 — making it the nation's eighth-largest not-for-profit independent university. Nova also ranks as Broward County's second-largest private employer.

Florida Atlantic University, though based in Boca Raton, serves more than 5,000 students at Broward campuses in Davie, Dania Beach, and Fort Lauderdale. Those three campuses also employ more than 500 faculty and staff.

Keeping graduates here

On a per-capita basis, South Florida's college enrollment holds its own against many competing metropolitan areas. But where the region has struggled is in retaining graduates, as many leave, degrees in hand, for other cities where they see greater opportunity.

"I don't think we want to be educating people for New York, Boston, and Atlanta," said Frank Nero, President/CEO of the Beacon Council, Miami-Dade County's economic development partnership. "That's exactly what's going on."

The Beacon Council is in the midst of drafting an updated strategic plan, dubbed "One Community One Goal," that will seek to build the local economy through targeting specific industries such as aviation, hospitality, and international banking. Though the planning process is still identifying what university programs can assist in attracting specific industries — and where training gaps exist that must be filled — the plan has already proclaimed education as "the foundation for growth in all industries."

As for the thorny question of whether South Florida can do a better job of retaining well-educated young professionals, Nero says the key will be aggressively training the local workforce while simultaneously wooing new companies that can make the local employment market more robust.

For now, the Beacon Council is not targeting higher education as an industry to recruit in and of itself — the logic being that universities don't relocate in the same way that companies do. South Florida's college presence is expected to grow primarily through the region's existing institutions.

But on a smaller neighborhood level, the city of Hollywood has made a major push to attract a satellite campus for Barry University.

Hollywood's Community Redevelopment Agency recently celebrated the opening of Barry's new health sciences campus in the heart of the city's downtown. The 10,000-square-foot building was refashioned from a closed city fire station, and will now house the university's anesthesiology and biomedical science programs. Turning the old firehouse into a learning center required a million-dollar renovation, and Hollywood officials were so eager to lure Barry that they financed the overhaul through CRA-administered federal grants. Barry will repay the CRA about half of that construction cost through \$50,000 annual payments spread out over 10 years.

"It was something that we were very excited about from the beginning," CRA Executive Director Jorge Camejo said, adding that the city is hopeful the campus' students and faculty will frequent downtown Hollywood's nearby shops and restaurants. The Barry campus' niche in health professions has inspired the city's hope it will only grow in the future, as the healthcare industry continues going strong.

With plenty of housing options downtown, Camejo said, there's also the possibility that some of those affiliated with the campus will consider moving into the area as well.

Billions of dollars circulating

Aside from generating foot traffic for nearby businesses, South Florida's colleges provide an economic jolt in a number of ways: there is the increased earning power graduates enjoy after obtaining degrees, there are the thousands of residents employed directly by institutions, and there are also the outside vendors required to keep large-scale campuses up and running — from food service providers to computer technicians.

Combine all of those impacts and it's easy to see how the economic impact of colleges in South Florida soars well into the billions of dollars.

How many billions, exactly? That's where things get tricky. All major local colleges produce written estimates of their economic impact, but these estimates are each performed with their own individual mathematical formulas and assumptions, making it hardly an apples-to-apples comparison. These estimates are also released years apart from each other. Nevertheless, here are some of the findings:

A 2010 Miami Dade College analysis pegged the impact of student productivity, college operations and student spending in the region at about \$4 billion, or about 4 percent of the total county economy.

- Using 2007 data, the University of Miami estimated its local economic impact at \$4.5 billion. Since then, UM's economic output has grown substantially — university operating expenses jumped from \$774 million annually to \$2.3 billion in 2011.
- Nova Southeastern University, using 2008 data, calculated a nearly \$1 billion impact on South Florida's economy.
- A 2010 Florida International University analysis credited the institution with a nearly \$2 billion economic impact on Miami-Dade County.

FIU's economic analysis was one of the few to differentiate between the institution's economic size and economic impact. The economic size is a larger number, one accounting for all the university's activities and their spillover positive effects, while the economic impact also considers — and subtracts — the amount of jobs and earned degrees that would have happened even in a world where FIU never existed.

If you subtracted any major local university from the landscape, it's likely that some of those who attend class or work at that institution would have simply done the same at another local school — therefore those wages and degrees would be here no matter what. When former FIU economics professor Peter Thompson produced FIU's analysis, he made it a point to separate the true economic benefit from the higher education-related activity that would be here with or without FIU's presence.

Still, considering that South Florida's colleges are generally much younger than their counterparts across the country, the schools' collective economic heft is impressive. Local colleges, particularly the University of Miami, have also been gaining ground building national prestige.

But when it comes to one key indicator of on-campus innovation — registering new patents for original inventions or ideas — the region's universities lag behind not just other parts of the country, but other areas of the state, too.

For the period of 2006 to 2010, Florida's state university system as a whole was a patent-producing juggernaut, filing a total of 762 patents. But it was schools such as the University of Florida, the University of Central Florida and the University of South Florida that dominated the list. UF was responsible for 263 patents, while the other two schools each submitted roughly 200.

The U.S. Patent and Trademark Office's Florida rankings for the period only list schools with five or more patents, and FIU is absent from the list. The University of Miami does appear, but only boasts 18 patents over those five years.

University of Miami President Donna Shalala said it is discoveries in technology or engineering that largely fuel the patent submissions, and that UM still has some catching up to do with other state schools in that regard.

"They're much larger institutions, and with a longer history," Shalala said. "We're clearly building in that area."

Shalala noted that UM is tops in the state when it comes to National Institutes of Health funding, and clearly medicine is one area where Shalala's school exerts a growing dominance. UM became a hospital operator with its \$260 million purchase of Cedars Medical Center in 2007, and in September the university opened its \$105 million Life Science & Technology Park — a facility UM hopes will be a catalyst for growth in the region's fledgling biotech industry.

Becoming known as a research hotbed, whether in biotech or otherwise, is something that has thus far eluded South Florida, despite its concentration of colleges and universities.

Nova Southeastern University President George Hanbury II is still optimistic, though he acknowledges that increased regional cooperation is necessary before South Florida can build its higher education brand.

A generation ago, Hanbury says, North Carolina's Research Triangle was in economic upheaval as both textiles and tobacco — two key industries — were in freefall. From North Carolina's "retooling" came its new research identity, and Hanbury says our region, after riding the housing boom-turned-bust, should make it a point to nourish its own educational assets.

"I hope that we are able to make this lemon into lemonade," Hanbury said. "And to recognize that higher education can indeed be like it has been in other parts of this country."

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