

FLORIDA TAXWATCH BRIEFING

MARCH 2017

Expanding Florida's High-Tech Manufacturing Sector

Spreading a High-Tech Footprint Across the Sunshine State

As a state, Florida is home to one of the nation's strongest economies. With a Gross State Product of nearly \$911 billion in 2016,¹ the state's economic success has helped Florida become one of the best places in the nation to work and live. However, some questions remain on whether or not Florida is properly situated to compete in an ever-changing global economy. Currently, Florida's economy relies heavily on the tourism, real estate development, and financial industries; and while these sectors are vitally important to the state's economy, Florida should also look to invest in sectors that have significant growth potential. One sector that could benefit from state investment and has been touted in the past by government officials is manufacturing.²

In 2015, Florida was home to more than 12,100 manufacturers that employed approximately 335,700 individuals.³ While these numbers sound impressive on the surface, manufacturing jobs only account for 4.2 percent of non-farm employment⁴ in the state, placing Florida at the 7th lowest percentage in the nation.⁵ When it comes to the southeast, Florida ranks last in terms of manufacturing as a percentage of total employment.⁶

GROWTH POTENTIAL OF MANUFACTURING

With this knowledge, it is important that Florida prioritize investment in manufacturing to ensure that the state can compete in the ever-changing world economy. Across the world, governments are spending millions of dollars to incentivize manufacturers to build in their country.

One such example is the National Graphene Institute (NGI) in Manchester, England. The NGI, which was highlighted in Florida TaxWatch's 2015 Briefing *Building Florida's High-Tech Manufacturing Sector: Analysis of Public Industry Infrastructure Investment Projects in the Advanced Manufacturing Sector* is a fantastic example of how government investment in the growing field of manufacturing can help grow an area's economy.

The United Kingdom's government awarded the NGI \$55 million, while an additional \$33 million was awarded by the European Regional Development Fund.⁷ The NGI, which has been a huge success, now partners with more than 60 companies (20 more than this time last year), including Airbus, Dyson, and Samsung,⁸ and continues to grow every year. In fact, the NGI is set to open an \$86 million Graphene Engineering Innovation Centre in 2017.⁹

1 Florida GDP outpacing U.S. economic output thanks to strong real estate, construction sectors. Tampa Bay Times. July 27, 2016. <http://www.tampabay.com/news/business/florida-gdp-outpacing-us-economic-output-thanks-to-strong-real-estate/2287087>

2 Florida Trade and Logistics Study and Florida Trade and Logistics Study 2.0

3 "Florida Manufacturing Facts." National Association of Manufacturers. 2016.

4 Ibid.

5 "Manufacturing Employment by State." National Association of Manufacturers. 2014.

6 "Manufacturing Employment by State." Nam.org. March 2016.

7 "Find the best of both worlds in Manchester." Sciencemag.org. July 15, 2016.

8 "Partnerships." The University of Manchester. 2017.

9 Ibid.

The success has turned Manchester into a manufacturing hub. The city was named the 2016 European City of Science.¹⁰ On top of that, the NGI has helped businesses grow and has even created “spin out” projects. One of these “spin out” companies that is interesting to note is Graphene Enabled Systems (GES). GES, which launched in 2016, is owned entirely by the University of Manchester.¹¹ The company plans to partner with research teams at the university,¹² which will give students a unique opportunity to garner “real world” experience, giving them a leg up on the competition when they enter the workforce. The NGI will not only help boost the region’s economy by creating jobs and companies, the facility also brings prestige to the local university, boosting the area’s workforce for years to come.

The NGI is not the only center; in fact, as the demand for advanced manufactured goods increases, high-tech manufacturing hubs are starting to pop up all over the world. The need for growth in the high-tech manufacturing sector has never been more apparent. For example, the average smartphone (which is owned by 68 percent of American adults)¹³ contains 24 sensors, which are built in advanced manufacturing centers.¹⁴ In fact, the sensors account for roughly 20 percent of the cost of a smartphone.¹⁵ While sensors are vital to the advancement of cell phone technology, they have also become integral to the manufacturing of many goods used on a daily basis. TV’s, computers, cars, and nearly any electronic device contain these high-tech specialized sensors that are built in advanced manufacturing facilities.

10 “Manchester named European City of Science for 2016.” 2015. September 2015.

11 “University Launches New Graphene Company.” Ump.com. June 2016.

12 Ibid.

13 “Technology Device Ownership: 2015.” Pew Research Center. October 2015.

14 “ICAMR: Capturing the Sensor Economy for Florida.” Icamr.net. 2015.

15 Ibid.

AN OPPORTUNITY FOR FLORIDA TO GROW THE STATES HIGH-TECH MANUFACTURING FOOTPRINT

Understanding that Manufacturing could be a key to the future of Florida’s economy, it makes sense for the state and private entities to invest in manufacturing projects that have a potential for high impact. One such project is The Bluffs in Pensacola, Florida. The Bluffs, a project that is hoping to build one of the nation’s premier industrial campuses, stretches over 6,300 acres of land overlooking the Intercoastal Waterway, Escambia River Delta, and Escambia Bay. The Bluffs plans to develop less than half of the total site, leaving more than 3,500 acres as natural pristine habitat.

Currently, some of the land is developed by partners in The Bluffs project; the partners include Emerald Coast Utilities Authority, Ascend Performance Materials, Gulf Power Company, and the University of West Florida, which are all working together to help back the development of the site.

The location and potential economic impact are two of the main factors that truly set The Bluffs apart from other manufacturing centers and make it worth Florida’s investment. If developed to expectation, the full site could support more than 6,000 manufacturing jobs, and be home to some of the nation’s premier chemical, transportation equipment, renewable energy, and machinery manufacturing companies,¹⁶ the result of which could have a lasting economic impact not only on the Pensacola region, but the entire state of Florida.

16 “The Bluffs: 2015 Final Industrial Development Study.” 2015.

THE LOCATION

The location for The Bluffs development project makes it one of the most unique, and gives it the opportunity to become one of the most successful manufacturing centers in all of the U.S. Sitting on 6,300 acres that overlook the Escambia Bay and intercostal waterway not only makes the site aesthetically pleasing, it also gives the site access to key waterways.

There are currently two existing barge terminals that are in close proximity to The Bluffs development site. One is used to bring in coal to the Gulf Power plant and is currently used at its full capacity. However, the second is used by Ascend Performance Materials and has currently only reached 50 percent capacity. Working with Ascend (a partner in The Bluffs Project) on scheduling, and building out more access to the barge terminals could allow for barge access to The Bluffs development site, allowing for manufacturers to easily transport goods in and out of the development.¹⁷

Having access to a barge terminal can be a great selling point for The Bluffs. Currently, shipping goods by sea, especially internationally, is the most economical method.¹⁸ The low cost is associated with a couple of factors. For one, transport ships and barges can move a large amount of goods in one shipment, allowing for multiple companies to share in the cost of the ships' operations. Another reason is that ship operation is relatively cheaper than travel by land or air. This is due to the fact that it takes less energy to transport goods on the seas compared to other methods.

Another method of transportation typically sought out by manufacturers is railways. The Bluffs is conveniently located next to a rail sys-

tem and can be accessed by the Gonzalez Spur off the CSX mainline. Rail lines are typically the preferred method of transportation for manufactured goods for a lot of the same reasons ships are preferred. Railways offer manufacturers the opportunity to ship items in bulk across the nation, and are typically a more economical (albeit less flexible) alternative to road transports.¹⁹

The rail line at The Bluffs also connects the development site to the Port of Pensacola, allowing for even greater access to transportation of goods in and out of the development site.²⁰ The current access to a rail-line and port are great foundational pieces that can help make The Bluffs an attractive site for companies looking to open a manufacturing facility; however, to build out the entire development, improvements to both the railway and the barge/port access will likely need to be made to accommodate the increased demand. The site would also benefit from improvements to roadways. Currently there is a proposal to create an Industrial Boulevard that would help "connect the site," allowing potential users to access the entire development. This connectivity would help the flow of products in and out of the site, and allow the state to invest in a commodity that it will benefit the general public for years to come.

The location of The Bluffs is also a great benefit to the state's university system. The site for the development sits in close proximity to the University of West Florida, one of the state's public universities. In fact, the University of West Florida owns a portion of the land, meaning state dollars invested in the site would go to help one of the state's great public universi-

17 "The Bluffs: 2015 Final Industrial Development Study." 2015.

18 "Global Shipping: Choosing the Best Method of Transport." World Industrial Reporter.

19 "Global Shipping: Choosing the Best Method of Transport." World Industrial Reporter.

20 "The Bluffs: 2015 Final Industrial Development Study." 2015.

ties. Having an advanced manufacturing center so close to the university will grant students and professors the opportunity to work on cutting edge projects being developed at the manufacturing centers. Collaborations like this have already benefited the University of Central Florida (UCF).

Working with the International Consortium of Advanced Manufacturing Research (ICAMR) (a development in central Florida that shares similarities with the Bluffs), a UCF team of researchers was awarded \$1.1 million by the U.S. Department of Energy to develop a new manufacturing process that will help advance the use of solar energy. The grant would have never have been possible if it weren't for UCF's partnership with ICAMR, as a key component of the grant was the ability to make the research manufacturable.²¹

With The Bluffs so close to the University of West Florida, students and professors will have the opportunity to work on projects with real world applications. This will allow students to garner the proper experience needed to compete in the job market upon graduation, helping both the students, and the prestige of the University.

THE ECONOMIC IMPACT

The development is also a key feature that will help make The Bluffs a successful hub for advanced manufacturing, and bring with it a significant economic impact for the region and state. The site's first phase allows for 10 advanced manufacturing facilities that will develop approximately 295 acres,²² along with the previously mentioned facilities that are already located there. This will allow companies to partner together to create synergy and come up with products in a more efficient and effective manner.

With multiple companies at the site, there is also the potential for strong job growth in the manufacturing field for Pensacola and the surrounding counties to the tune of nearly 6,000 jobs.²³ Given that the average manufacturing salary in the U.S. is \$66,800,²⁴ new wages in the region could go up by as much as \$400 million. On top of that, the economic effect of new spending in the region is expected to indirectly create another 9,000 jobs,²⁵ which could bring another \$390 million in wages.²⁶ The nearly \$800 million in wages would be a great boost for the region's economy through new spending, which would also have a positive impact on Florida's tax revenues.

The development of The Bluffs will also help raise the economic profile of the Pensacola area. In 2015, the per capita personal income from the metropolitan area was \$39,048, nearly 42 percent lower than the average salary for a manufacturing job in the United States. The increase in new high paying jobs has the potential to help all sectors of the local economy, as high-income earners tend to have more discretionary income, allowing those individuals to spend more money around town at restaurants, shops, etc.

The development of The Bluffs could also have a significant impact on Florida's Gross State Product (GSP).²⁷ In 2016, Florida's GDP was approximately \$911 billion.²⁸ After running an analysis using BEA RIMS II multipliers,²⁹ Florida Tax-Watch found that the development of The Bluffs (at full capacity)³⁰ could add \$1.1 billion to the

21 "UCF and ICAMR Capture DOE Award for Cost-Competitive Solar Energy. UCF TODAY. 2016.

22 "The Bluffs: 2015 Final Industrial Development Study." 2015.

23 Ibid.

24 U.S. Bureau of Economic Analysis and the U.S. Census Bureau (2015).

25 "The Bluffs: 2015 Final Industrial Development Study." 2015.

26 U.S. Bureau of Economic Analysis and the U.S. Census Bureau (2015).

27 The GSP is a measure of a state's total economic output, meaning it is the sum of all of the value added by industries within Florida.

28 "Florida GDP outpacing U.S. economic output thanks to strong real estate, construction sectors." Tampa Bay Times. July 2016.

29 State multipliers created by the Bureau of Economic Analysis.

30 Accounting for 6,000 new jobs

state's GSP.³¹ This would be a major boost to the Pensacola metropolitan area that currently contributes approximately \$16 billion to Florida's GSP.³²

Overall, if given the opportunity to grow, The Bluffs development could bring a significant boost for the state and Pensacola region.

CONCLUSION

For years, Florida TaxWatch has touted the importance of Florida's manufacturing sector, and the need for investment has never been greater. Economists and analysts across the world agree that the new wave of manufacturing is upon us, and the economic rewards could be substantial for those who invest wisely in the sector. The time is now for the state to move forward with projects that could put Florida on the map as a go-to destination for manufacturing. The state should look for opportunities to invest when taxpayers can expect to receive a positive return on investment. After reviewing The Bluffs development project in Pensacola, Florida TaxWatch has concluded that, at this point in time, the project would be a worthwhile investment for the state of Florida.

RECOMMENDATIONS

Invest public-funds into the infrastructure necessary help create and grow manufacturing hubs. Luckily for legislators, they will not have to look far for a project worthy of state dollars. After reviewing the development plan for The Bluffs, and the potential economic impact on the city and state, Florida TaxWatch recommends investing in the final build out of The Bluffs development. As stated, the site already has a great foundation in place; however, to accommodate large scale production facilities, improvements to existing roads and transportation infrastructure will likely be necessary, and will also benefit the general public in the region.

Continue to work with private entities to ensure the long-term growth potential is met. While the Legislature is likely to debate the use of economic development funds, many experts agree that high-tech manufacturing will be a major driver for the world's economy in the future. As it stands, Florida has the opportunity to invest in an industry that is on the rise, and beat out potential competitor states for valued companies in the process. Florida TaxWatch recommends that the Legislature look to work with private entities to help ensure that Florida is able to properly "diversify its portfolio" and help make the state a major player in manufacturing for years to come.

31 Florida TaxWatch Analysis using BEA RIMS II multipliers.

32 BEA Regional GDP information (2015).

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