The Projected Economic Impact of the Central Florida Innovation District on the Polk County Economy

Prepared for the Central Florida Development Council
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Preface

This study was the result of contracted work between the Central Florida Development Council and Florida Southern College which was initiated in September 2019. The author would like to thank the Central Florida Development Council, specifically Sean Malott and Lindsay Zimmerman, Julie Fife from the Polk County Office of Planning and Development, Amy Palmer from the City of Auburndale, Teresa Maio from the City of Lakeland, Randy Avent of Florida Poly, Rick Harper of Economic Consulting Services, Thomas White of NC State University, Gary Ralston and David Hungerford of SVN Saunders Ralston Dantzler Real Estate, and Alec Hammond of Florida Southern College for their contributions to the project.

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Executive Summary

The Central Florida Innovation District, which is comprised of over 3,000 acres in the northeast corner of Polk County, is positioned to have a significant impact on the growth and landscape of the Central Florida region over the next several decades. With a focus on developing the target industries of Advanced Manufacturing, Healthcare Technology, Information Sciences & Engineering, and Mobility & Innovation, the Innovation District should provide a meaningful number of technology-focus jobs to the region.

This forward-looking economic impact study conducted compared the potential growth and development of the region with and without an innovation district and found that we can expect over $5.2B of total economic impact and 32,000 jobs for the region with the district compared to just under $2.4B of total economic impact and over 20,600 jobs by the year 2040 without. There are three main drivers for the difference in these economic impacts: first, the land allocation to commercial use is approximately 38% higher with the innovation district; second, the industries in the innovation district use space more efficiently which accounts for 25% more workers per square foot; third and most impactful, the difference in the incomes of the STEM-focused jobs created account for 77% more economic impact per worker. The gains associated with STEM-focused jobs have been examined in other studies and have been shown to drive 4.3 additional jobs for each STEM job versus only 1.4 additional jobs for non-STEM-focused jobs. This difference drives the overall economic jobs multiplier of 2.4X with the innovation district versus 1.5X without the innovation district.

This additional development would drive tax revenues for the region as well. The increase in incomes and development are expected to drive up the relative state and local tax revenue by 2.5X from roughly $51M without the innovation district to $126M with the innovation district by 2040. These higher revenues come primarily from the increase in wages which drive both household spending and thus sales taxes, and demand for higher-value housing which increases property tax revenues.

Overall, this study showed that there is great potential for the innovation district to have a meaningful impact on the region, both through the number and quality of jobs and though the positive fiscal impacts to the state and local governments.

Introduction

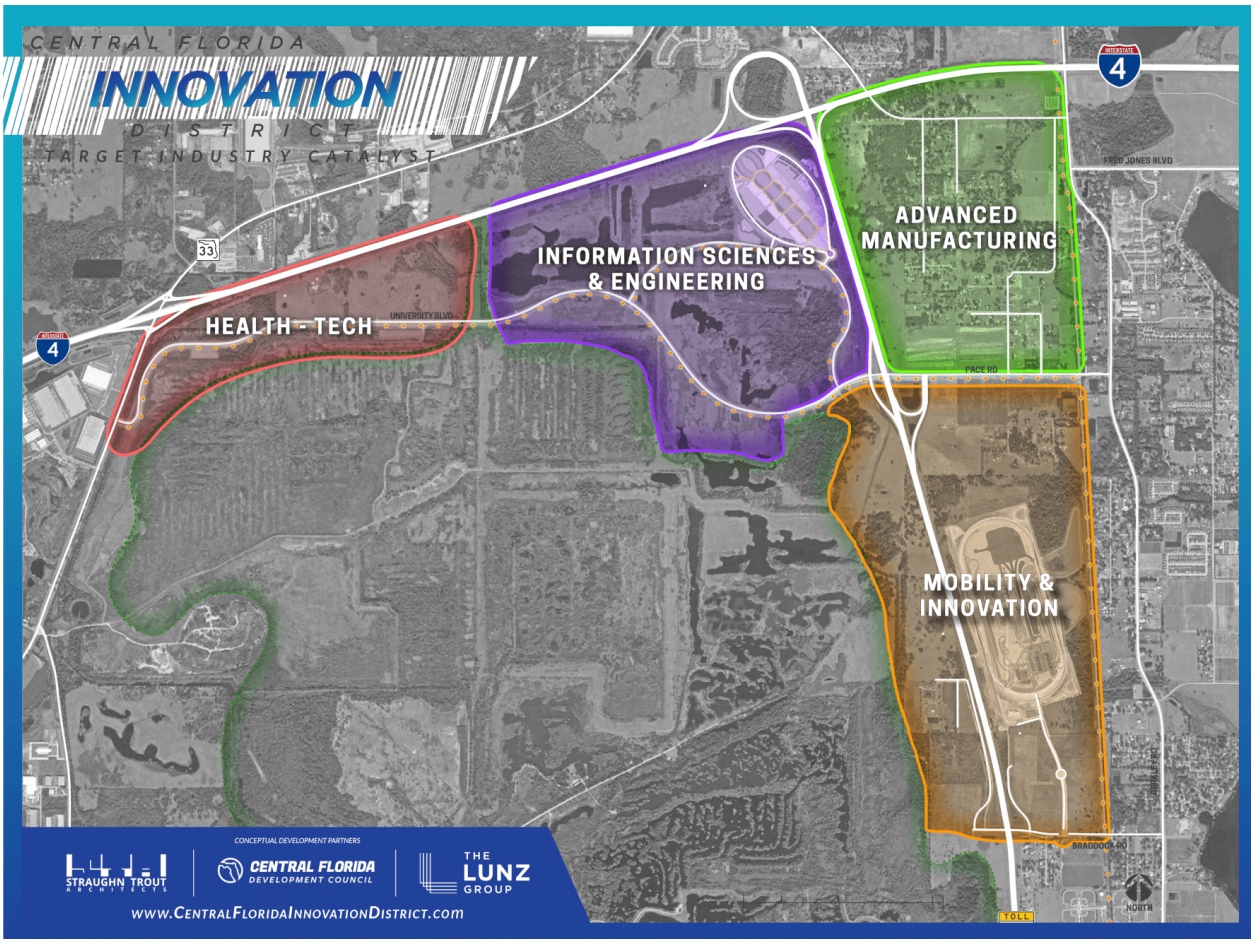

Figure 1: Map of Central Florida Innovation District

In October 2019, the Central Florida Development Council (CFDC) announced a vision to create the Central Florida Innovation District (CFID), an area of over 3,000 undeveloped acres in North Central Polk County. The district surrounds Florida's newest state university, Florida Polytechnic University (Florida Poly), as well as SunTrax, America's new center for transportation innovation developed by the Florida Department of Transportation and Florida's Turnpike Enterprise, dedicated to the research, development and testing of emerging transportation technologies. This vision of the innovation district laid out a plan to utilize the space around those key anchor institutions for a combination of Advanced Manufacturing, Health Technology, R&D and mixed-use Retail/Commerce/Residential applications. Located at the heart of the I-4 Florida High Tech Corridor in Polk County and directly positioned between two major metropolitan markets, Orlando and Tampa, the district aims to capitalize on research and industry synergies to

transform that piece of Polk County into an economic engine to support the high-tech job and education needs of the next generation.

This transformation would be driven by the job growth in currently underrepresented areas of the local economy and the high-impact multiplier of those jobs, over-and-above the multipliers of alternative industries. In the key economic sectors, such as Information, and subsectors, such as Electrical Equipment Manufacturing and Computer and Electronic Manufacturing, Polk County's workforce is underrepresented, having just a fraction of between 9% and 40%, depending on the industry, of the jobs that an area this size could support[1]. These sectors, and others like them, would bring significant economic benefit to the area through higher wages and a stronger economic multiplier than other jobs. For example, at the national level, Information jobs earn over 2X the average national wage[2] while jobs like those lead to 4.3 additional jobs compared with 1.4 additional jobs for non-High-Tech jobs[3]. It is through those higher wages and greater jobs multiplier that the marginal economic gains are found.

The technology-focused jobs are expected to be some of the faster growing occupations over the next 8 years. Based on the 2018 projections from the Bureau of Labor Statistics, overall employment was projected to grow by 5.2% between 2018 and 2028, with growth in Computer Occupations growing by 12.2%. By developing the Innovation District, the region would be in a better position to capture their fair share of that growth. This is reinforced by the findings of the Assessment of Economic Impact of Florida Poly[4] by Rick Harper, Ph.D., where the returns on technology-focused higher education far out-paced the returns to the non-technology-focused higher education.

There have been many studies on the impact of innovation districts on growth and prosperity, one such study by The Brookings Institution[5] highlighted the value of the proximity of clusters to diffuse information along with the necessity of coordination between educational institutions, private enterprise and government to create an innovation ecosystem of economic, physical and networking assets. An earlier work by Brookings[6] reviewed several studies on the impact of such clustering, citing works by Carlino and Hunt[7] that showed that the benefit of the knowledge spillovers is greatly impacted by the distance between business locations and the closer the better. Rosenthal and Strange found the greatest benefits occurred within 1 mile of proximity, with impacts on scale of 10 to 1,000 times greater than the impacts that are seen when businesses are between 2 and 5 miles apart[8]. Additional studies[9] show that sharing building space and improving labor density improve the spillovers and productivity. There is also early anecdotal evidence on the impact from innovation districts[10] on job growth, one example is from 22@Bercelona which reported 10% greater job growth than the city in 2009, despite an ongoing global recession that year[11]. Those results suggest that a well-designed innovation district may drive growth and act as recessionary hedge, particularly when it would help to further diversify an existing regional economy.

Economic Impact of the Central Florida Innovation District

In order to capture the economic impact of the innovation district, this report considers what the growth of the area might be over the next 20 years. While this requires many assumptions, the assumptions made are based on existing trends, data and results of other innovation districts. Additionally, it is important, when considering the expected economic impact of the innovation district, to also consider the expected economic impact of the area if the innovation district was not implemented. It is the comparison of the results of these two paths that show the net value of the innovation district.

The following charts compare the economic impacts in dollars and jobs of the two paths over the next 20 years.

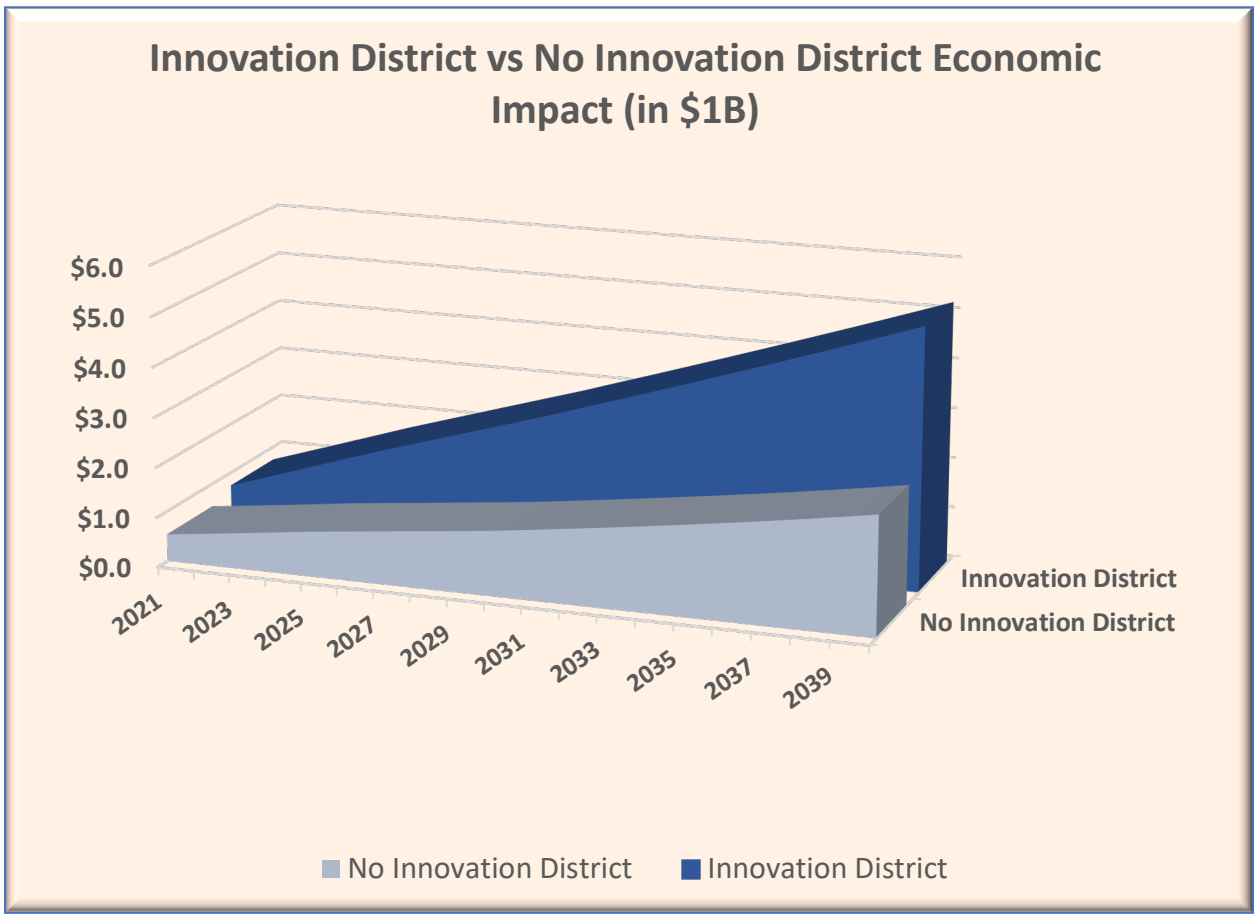

Figure 2: Economic Impact of Innovation District vs No Innovation District, Source: IMPLAN, author's calculations

While it is anticipated that growth will start slowly under both paths, the innovation district is anticipated to grow to over $5.2B of total economic impact and provide a total of over 32,000 jobs for the region without the Innovation District are anticipated to grow to just under $2.4B of total economic impact and provide a total of over 20,600 jobs by the year 2040.

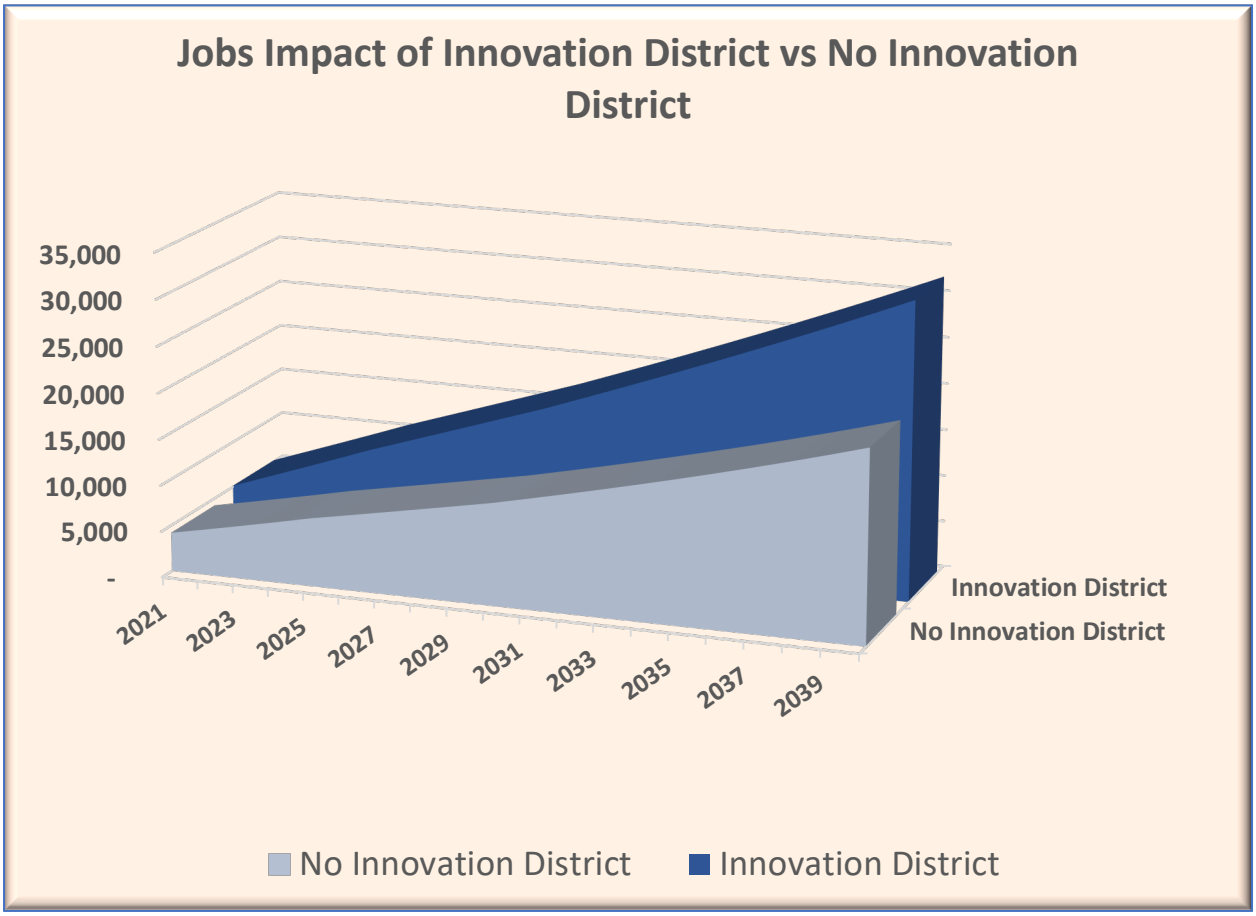

Figure 3: Jobs Impact of Innovation District vs No Innovation District, Source: IMPLAN, author's calculations

The economic impact for each path is driven by three components:

1. Florida Poly activities
2. Construction activities
3. Ongoing activities

The contribution to the area's economic impact by Florida Poly was calculated based on the results of a separate economic impact study, Assessment of the Economic Impact of Florida Poly, by Rick Harper, Ph.D.[12], completed in September 2019, with growth estimates based on increasing enrollments projected over the next 20 years[13]. The growth of the economic impact of Florida Poly was assumed to be the same for both paths. Florida Poly contributed nearly

$300M and over 2,300 jobs in the first year and over $1B and 8,200 jobs by 2040. Keeping the growth-rates the same for both paths is a conservative approach as it is quite likely that the synergies of a tech-focused plan and Florida Poly would spur growth at the University more so than would be expected without the Innovation District.

The approach to estimate the economic activity for the construction activities and ongoing activities both plans was the same:

1. Determine the maximum amount of economic activity that was possible given the size of the buildable area and land use
2. Determine an estimate of how much of the maximum activity was reasonable achieve within 20 years
3. Allow for a simple growth path for each plan

The maximum amount of economic activity the land-use would allow was based on zoning information provided by the appropriate area planners[14]. A reasonable estimate of growth anticipated by the 20-year mark was set at 20%, this was based on the growth rates of other large innovation districts, e.g., Research Triangle Park, in their first 20 years[15]. To simplify the process, the growth was smoothed-out so that the 20% growth was achieved by growth in increments of 1% of the maximum economics activity per year.

The contribution to the area's economic impact by construction activities was based on the current and potential land use of the area's developable land as things currently stand and the zoning shift under the proposed innovation district, a detailed methodology is provided in the Methodology section of the report. For the Innovation District, the proposed land-uses were used to guide an estimate of the possible building areas for commercial and residential construction, while the current zoning approvals were used for the no innovation district estimations. For both plans, an average construction cost of $225 per square foot for commercial, $223k per single-family home and $124k per multi-family home were used to estimate the first year's construction cost[16]. The growth in construction costs beyond the first year was assumed to be 3%.

The innovation district and no innovation district had two key differences for construction activities. The first key difference is based on the overall allocation of land. The innovation district vision allocates over 2,200 acres to commercial use and 465 acres to residential use while, currently, there is an allocation of over 1,600 acres to commercial use and over 1,000 acres to residential use. The second key difference is the type of residential use. Under the current approvals, there is a mix of approximately 42% single-family and 58% multi-family, while the innovation district vision has a mix of 30% single-family and 70% multi-family. These differences lead to small differences in the anticipated construction activity, with the innovation district expecting $236M[17] per year initially[18], growing to $364M per year by 2040 and the current allocations expecting $191M per year initially, growing to $296M by 2040.

The contribution to the area's economic activity by ongoing activities was partially based on the zoning and partially based on the assumptions of industrial allocation. For the innovation district, the industrial allocation was provided by the innovation district plan, while the no innovation district allocation was based on the current distribution of employment[19]. The number of employees per square foot of building space[20] was applied to both plans based on the appropriate industrial uses. Unlike the construction activities, the growth of ongoing activities stacks from year to year, with initial impacts of the innovation district estimated to be $207M in 2021 and growing to $3.8B by 2040 and initial impacts of the no innovation district estimated to by $58M in 2021 and growing to $1.1B by 2040.

It is in the ongoing activities that the economic impact of innovation district separates from not having an innovation district. There are three main drivers of this difference:

1. The land allocation to commercial use – the innovation district allocates approximately 38% more land to commercial use, which drives up the maximum economic activity
2. The industrial allocation – this allows the innovation district to fit more employees in the same amount of space, this account for 25% more workers per square foot
3. The difference in the incomes of the jobs created – this is the most impactful difference, the greater incomes associated with the STEM-focused jobs account for 77% more economic impact per worker

A breakdown of the sources of economic impact of ongoing activities, excluding construction activities and Florida Poly, and calculations of incomes per worker under the two scenarios are illustrated in the tables 1 and 2 above. The Direct Effect accounts for the workers directly employed in the area, the Indirect Effect accounts for the jobs created by the purchases of the employers in the area (e.g., supplies and materials), and the Induced Effect accounts for the jobs created by the personal spending of the workers employed in the area (e.g., spending at a grocery store helps to create a job at the grocery store). The Labor Income are the wages to the workers from each type of effect. GDP and Output are two measures of economic impact. GDP is the value-added by the jobs while Output is the total change in sales in the area. While the Direct Effect employment number only differs by 28%, the Total Effect employment number differs by 105%. This is driven by the 104% difference in average wage per worker. The greater wages are able to create over 3X as many Induced jobs through the workers' regular spending. Those jobs are spread across the entire region and nearly all industries. It is this multiplier-effect, or ripple, that creates much of the additional benefit of the innovation district over no innovation district.

Table 1: Ongoing Economic Impact of the Innovation District in 2040					
Impact Type	**Employment**	**Labor Income**	**GDP**	**Output**	**Income per Worker**
Direct Effect	8,896.10	$638,576,925	$930,036,281	$2,007,506,141	$71,782
Indirect Effect	5,948.00	$350,819,733	$565,319,328	$927,317,207	$58,981
Induced Effect	6,369.30	$291,587,820	$532,748,371	$895,573,441	$45,780
Total Effect	**21,213.40**	**$1,280,984,477**	**$2,028,103,980**	**$3,830,396,789**	**$60,386**

Source: IMPLAN, author's calculations, excludes construction activities and Florida Poly

Table 2: Ongoing Economic Impact without the Innovation District in 2040					
Impact Type	**Employment**	**Labor Income**	**GDP**	**Output**	**Income per Worker**
Direct Effect	6,936.80	$244,350,384	$330,525,430	$550,307,497	$35,225
Indirect Effect	1,363.50	$72,282,582	$128,112,366	$215,871,824	$53,013
Induced Effect	2,039.80	$93,367,232	$170,598,011	$286,760,107	$45,773
Total Effect	**10,340.10**	**$410,000,197**	**$629,235,807**	**$1,052,939,428**	**$39,651**

Source: IMPLAN, author's calculations, excludes construction activities and Florida Poly

In addition to the impacts on economic activity and jobs, there is also a meaningful fiscal impact at the local, state and federal levels. Table 3, below, compares the estimated fiscal impacts for the final year of the projection (2040). As with the economic activity and job growth, the fiscal impacts are expected to grow along the way. At the state and local level, the Innovation District is expected to generate nearly 150% more tax revenue, while at the Federal level, it is expected to generate nearly 180% more tax revenue.

Table 3: Comparison of Projected Fiscal Impacts for 2040				
	State and Local Taxes		Federal Taxes	
	Innovation District	Without Innovation District	Innovation District	Without Innovation District
Employee Compensation	$0	$0	$158,343,589	$55,887,883
Proprietor Income	$0	$0	$3,490,563	$1,896,468
Tax on Production and Imports	$109,183,039	$45,514,332	$15,257,668	$6,360,352
Households	$10,571,441	$3,857,755	$122,053,720	$44,540,139
Corporations	$6,162,677	$2,010,899	$45,946,578	$14,992,499
Total	**$125,917,157**	**$51,382,986**	**$345,092,118**	**$123,677,341**

Source: IMPLAN, author's calculations, excludes Florida Poly

Conclusions

This study estimated the potential future economic impacts of the Central Florida Innovation District in comparison with the potential economic impacts without an Innovation District. Based on those estimates, the Innovation District is expected to generate 120% more economic activity and 55% more jobs for the area than not having an Innovation District. If the growth of Florida Poly is excluded, the difference is even greater, with 220% more economic activity. These jobs are anticipated to be higher paying, with overall income per worker 50% higher for ongoing activities.

While any projection of this nature requires assumptions on growth, based on previously cited literature, the 1% per year growth towards full capacity is either in line or conservative when compared to observations of other innovation districts. The growth in STEM-focused jobs would help drive the region's economy over the next 20+ years and fill the anticipated needs of consumers and employers. Innovation Districts around the world are responsible for outsized growth and true innovation. The literature on the subject highlights the need for key pieces to be in place, including anchor institutions, such as Florida Poly and SunTrax, supportive local and regional governments, interested investors and landowners, and an overall drive to accomplish a common goal. The Central Florida Innovation District appears to be in a unique position key anchors already in place, a high traffic and popular location with close access to many high-quality amenities, and a supportive regional community.

Appendix A: IMPLAN

This study used the IMPLAN software[21] to estimate the economic impacts based on expected jobs in specified sectors matched to the most appropriate[22] of the 536 sectors within the IMPLAN model. Input-Output models, of which IMPLAN is one, are effective at translating given inputs into outputs based on historical economic activity but are reliant on quality data as inputs. These models are best presented when a comparison case can be made, i.e., what is the alternative and how to the results differ. IMPLAN was used in this manner as multiple models were constructed based on two alternative paths, one with an Innovation District and one without an Innovation District. The details of those difference and inputs are included in Appendix B.

The IMPLAN model was set to capture the economic impact of the 5-county region, Polk, Hillsborough, Pasco, Osceola and Orange counties. Appropriate local purchase parameters were used for each of the measured activities based on the region size. It is expected that the economic benefit would center around the Innovation District site and diminish as is moved into the surrounding areas.

The economic impact of Florida Poly was generated using the IMPLAN software in a separate study by another author and extrapolated into the timeframe of this study with his permission and the guidance of the author and Florida Poly[23].

Appendix B: Methodology, Inputs and Caveats

The economic impact estimates generated by this study were based on a combination of existing jobs data for Polk County, projected jobs data for the Innovation District, current zoning for the target area, projected zoning changes for the target area, external economic data and estimated growth projections for the area. Due the forward-looking nature of this project, many assumptions had to be made and these estimates, in no way, purport to be the single possible outcome, they are just forward-looking estimates of what might be. Changes to the inputs or assumptions would have a meaningful impact on the results of the study.

The data used to generate the inputs for the Innovation District came from the Central Florida Innovation District proposal, created by the Central Florida Development Council (CFDC). This proposal specified 4 main economic sectors of focus, Health Technology, R&D, Retail & Commerce and Advanced Manufacturing, along with complementary areas for Gateways, Lifestyle & Community spaces and residential development. The CFDC provided guidance for the land allocations to each of these uses. For the alternative plan, no Innovation District, the current zoning for the same land space was used to divide up the area into analogous uses (residential, business, lifestyle, etc.).

Planners from the cities of Lakeland and Auburndale and Polk County provided the current regulations for buildable space on the land, which were used to translate the acreage in building square footage for the commercial space of both plans. Data from the US Energy Information Administration[24] was used to convert the potential buildable space into potential jobs. The distribution of jobs for the Innovation District was determined by the CFDC proposal, the distribution of jobs for the area without the Innovation District was based on the current allocation of jobs for the Polk County economy[25]. These calculations established a maximum job capacity for the area based on the space available and zoning rules. Table 4 contains the calculated data with the Innovation District while Table 5 contains the calculated data without the Innovation District. Based on previously cited literature, a growth estimate was assumed, such that the area would add 1% of the maximum capacity each year for the 20-year study period, reaching 20% of the total capacity by 2040. This assumption was made to simplify the process and it is not expected that growth would occur in such a linear and predictable path. These jobs were matched with job sectors within the IMPLAN model and used as the basis for the economic impact of ongoing activities.

Table 4: Allocation of Jobs at Maximum Capacity with the Innovation District			
Industry	**Percentage of Current Economy**	**Jobs**	**Square Footage**
Health Technology	24.8%	16,625	9,243,456
R&D	52.1%	34,877	20,926,157
Retail & Commerce	15.0%	10,057	12,067,845
Advanced Manufacturing	8.1%	5,421	4,878,491
Total	**100.0%**	**66,979**	**47,115,949**

Source: Author's calculations, CFDC, US Energy Information Administration

Table 5: Allocation of Jobs at Maximum Capacity with No Innovation District			
Industry	**Percentage of Current Economy**	**Jobs**	**Square Footage**
Utilities	0.2%	74	55,382
Construction	5.4%	1,957	489,206
Manufacturing	5.7%	2,068	3,101,382
Wholesale Trade	4.0%	1,440	1,727,913
Retail Trade	13.4%	4,837	5,804,014
Transportation & Warehousing	2.2%	812	1,218,400
Information	1.3%	480	287,985
Finance & Insurance	4.1%	1,477	886,109
Real Estate, Rental & Leasing	2.0%	738	443,055
Professional, Scientific & Tech Services	4.5%	1,625	974,720
Management of Companies & Enterprises	0.1%	37	22,153
Administrative & Support & Waste Management & Remediation Services	2.5%	886	531,665
Educational Services	7.6%	2,732	2,822,331
Health Care & Social Assistance	24.7%	8,935	4,967,822
Arts, Entertainment & Recreation	1.7%	628	941,491
Accommodation	0.8%	295	750,534
Food Services & Drinking Places	7.3%	2,621	1,889,457
Other Services (except Public Administration)	5.6%	2,031	3,046,000
Public Administration	6.7%	2,437	1,827,600
Total	**100.0%**	**36,109**	**31,787,218**

Source: Author's calculations, ESRI, US Energy Information Administration

The growth of jobs in each area over the time period generate a need for appropriate commercial construction. Average construction costs by building type (office, retail, mixed-use, etc.) were collected from local builders[26] and averaged out to $225 per square foot based on the weights of the different uses in the model. The new construction activity grew very slightly over time as the 1% steady growth lead to 1% development per year, but, unlike job growth, the construction activity does not generate ongoing jobs.

The area had allocations to residential space, with 465 acres allocated with the Innovation District and 1031 acres allocation without the Innovation District. Zoning information provided by the area planners allowed for calculations of the number of residential homes of high, medium and low density at full capacity for area without the Innovation District. The current zoning distributions were calculated to be 42% low, 35% medium and 23% high density. Distributions for the Innovation District were assumed to allocate more towards high density with 30% low, 30% medium and 40% high density. The construction costs were based on average permit approvals[27] for Polk County during 2019 according to the Building Permits Survey from the US Census. Like commercial construction activity, the residential construction was added at a rate of 1% per year but does not generate ongoing jobs.

As previously mentioned, there are some caveats with a study like this. First, while the author made meaningful efforts to support and corroborate the assumptions and data used, other assumptions and data could have also been made that would change the results of the study. Often these studies are backward-looking and are supported by data of what already happened rather than what could happen. The nature of any projection is such that it can only be viewed as one possible path of many possible paths. While the author considers the assumptions to lean on the conservative-side because of the forward-looking nature of the study, it is possible that the growth of the Innovation District underperforms the projections, or that the area without the Innovation District would overperform the estimates, bringing the marginal impacts closer together. That said, the author considers the methods and data used to be the best available and a reasonable projection of what could be.

Endnotes

[1] The Location Quotients for Information, Electrical Equipment Manufacturing and Computer and Electric Product Manufacturing are .39, .17 and .09, respectively, as of Q1 2019 based on the QWEC data.
[2] QWEC Data for Information sector compared to All Industries, $2509 weekly compared to $1198 weekly for Q1 2019.
[3] See "Technology Works: High-Tech Employment and Wages in the United States", http://documents.bayareacouncil.org/TechReport.pdf
[4] Report available at https://floridapoly.edu/wp-content/uploads/Economic-Impact-of-Florida-Poly-Sept-2019-final.pdf
[5] Martin Neil Baily and Nicholas Montalbano, "Clusters and Innovation Districts: Lessons from the United States Experience", The Brookings Institution, January 2018
[6] Bruce Katz and Julie Wagner, "The Rise of Innovation Districts: A New Geography on Innovation in America", Metropolitan Policy Program at Brookings, May 2014
[7] Gerald Carlino and Robert Hunt, "The Agglomeration of R&D Labs", Federal Reserve Bank of Philadelphia, 2012
[8] S.S. Rosenthal and W.C. Strange, "Geography, industrial organization, and agglomeration", Review of Economics and Statistics, 85 (2), 377-393
[9] Katie DuBoff, "Close Proximity Leads to Better Science", Harvard Medical School; Antonio Ciccone and Robert Hall, "Productivity and the Density of Economic Activity", American Economic Review 86 (1) (1996: 54-70
[10] Sara Lawrence, Michael Hogan and Elizabeth Brown, "Planning for an Innovation District: Questions for Practitioners to Consider", RTI Press Occassional Paper, February 2019
[11] "22@Bercelona: 10 years of economic growth" available at http://www.22barcelona.com/documentacio/22bcn_cens_2020_eng.pdf
[12] Report available at https://floridapoly.edu/wp-content/uploads/Economic-Impact-of-Florida-Poly-Sept-2019-final.pdf
[13] The growth estimates provided by Florida Poly were 2000 total students in 5 years, 2500 in 10 years and 5000 in 20 years. The economic impacts were calculated based on the Assessment of the Economic Impact of Florida Poly estimates of impact of 1424 students and scaled accordingly, with geometric growth of student counts applied in the years between provided student count expectations.
[14] The area covered by the Innovation district spans parts of the cities of Lakeland and Auburndale and unincorporated Polk County.
[15] See "The Growth of Research Triangle Park" by Link and Scott, https://link.springer.com/article/10.1023/A:1022216116063
[16] Commercial construction costs were based on responses from local builder, Rodda Construction. Residential construction costs were based on the 2019 average permit value of both single-family homes and multi-family homes as found on https://www.census.gov/construction/bps/msamonthly.html.
[17] All economic impacts were estimated using the IMPLAN software from MIG.
[18] This is based on 1% of the possible construction activity at 2020 prices.
[19] Current employment distribution from ESRI data on Polk County 2019.
[20] Average square feet per employee by industry from US Energy Information Administration, https://www.eia.gov/consumption/
[21] IMPLAN economic modeling software, www.implan.com
[22] The appropriateness of the sector matching was based on the author's judgement, while arguments can be made that another sector may be a better fit, it is not expected that slight adjustments to sector assignment would have a meaningful impact on the overall results
[23] Dr. Rick Harper conducted a previously cited study on Florida Poly, growth guidance was provided by Florida Poly based on projected student enrollments
[24] Average square feet per employee by industry from US Energy Information Administration, https://www.eia.gov/consumption/
[25] Current employment distribution from ESRI data on Polk County 2019
[26] Commercial construction costs were based on responses from local builder, Rodda Construction

[27] Single family unit cost was approximately $233k and multifamily unit cost was approximately $124k, https://www.census.gov/construction/bps/msamonthly.html