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# The Economic Impact of Catalyst Campus in 2019

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## 2019 Economic Impact Analysis, Catalyst Campus

### Defining Economic Impact

There are various components that comprise the total economic impact of a business or industry: sales/revenue, capital and other expenditures, labor (employee compensation) and federal/state/local taxes. Any business or sector can likely provide these data points in any given year as this gives an accurate picture of overarching direct revenue and costs, which businesses track in order to gauge overall financial profitability or loss.

However, we know that the “**direct**” revenue streams and costs are only the internal transactional aspects of a business within its own walls. No business is an island especially in today’s highly interactive economy. By definition, there are inputs that businesses must purchase from other businesses. In the economics vernacular, this makes up the “**indirect**” component of an impact analysis. For example, a residential construction company purchases hundreds or even thousands of components from both local and non-local suppliers in order to build a home. A satellite company has to purchase the various raw materials such as antennas and transponders in order to build a custom satellite. This business-to-business activity benefits other businesses related to the one being studied.

Likewise, employees of the studied business or sector are active consumers in society buying houses, cars, appliances, groceries, retail, haircuts and other goods and services. The same can be said about the employees linked to the business-to-business activity described above. This comprises the “**induced**” component of an economic impact analysis. It measures the consumption benefit of people being employed by businesses. And economists often point out that everyday consumption by active consumers comprises almost seventy percent of total gross domestic product, or GDP.

The indirect and induced impacts are more commonly known as the “**economic multiplier.**” A true, comprehensive economic impact analysis will sum the direct, indirect, and induced impacts in order to capture these comprehensive dimensions of a business, business cluster, or industry’s impact within a given region.

IMPLAN is the current “gold standard” software for analyzing economic impact. IMPLAN is a proprietary database and analytical tool that combines government and primary data sources. This software enables the user to specify location all the way to the zip code level although for the purposes of this study, Colorado and El Paso County combined will be the two geographic areas for the analyses. IMPLAN also uses specific industry codes to match revenue and costs to the appropriate economic multiplier. The results give a highly accurate measure of the economic influence a business or group of businesses has on a given region.

### Why Conduct an Economic Impact Analysis?

There are many reasons why an economic impact analysis can be helpful to a given business, business cluster or industry. The results can be used to validate the initial investment dollars used to build out the business or business cluster. Likewise, the results can be used to validate an expansion of current operations. The results can be used to entice new investors. The results can be shared with economic development agencies like chambers of commerce or downtown development authorities to attract other businesses from within or from outside the region by showing the “value” of a business or business cluster and/or the ecosystem it provides. The tax results, in particular, can be showcased to local or state government to demonstrate the tax revenue benefit of having that business or business cluster within its jurisdiction.

**The Process**

In order to properly gauge economic impact, the key input data points were collected from the CFO, or Chief Financial Officer of Catalyst Campus, Patrick Stephens. He directly obtained from Catalyst tenants the industry (or NAICS) code of each business, their 2019 revenue, number of employees, and capital expenditures. In some cases NAICS codes were not available, but through a web search the type of business was determined. IMPLAN has a “bridge” document that enables NAICS codes to be converted to one of their 536 more specific industry codes. The highly specific industry codes generate more granular and accurate calculations for measuring economic impact.

Catalyst Campus is a bit unique in that it has a mixture of various industries and both for-profit and nonprofit entities. While building the model within IMPLAN, the for-profit and nonprofit businesses are treated differently so that taxes are not calculated for the nonprofit entities. The results in this report reflect this “analysis by parts” as it is called by the IMPLAN geeks.

Because the types of tenants at Catalyst are varied and their “reach” for both inputs and outputs goes beyond El Paso County, the economic impact analysis was conducted for El Paso County AND the state of Colorado. Appendix A provides the results for El Paso County alone.

Table 1 shows the four types of entities within Catalyst Campus with company names and total headcount for each company. The majority of Catalyst tenants are commercial, for-profit businesses although several of these are Department of Defense contractors that are an active part of the military ecosystem in Colorado Springs.

<b>Table 1. Catalyst Campus Entities and Number of Employees, 2019</b>			
<b>Commercial For-Profit (# of employees)</b>	<b>Government</b>	<b>Educational</b>	<b>Nonprofit</b>
BlueStaq (17)	Army Future Warfare* (1)	GTRI* (4)	CCTI (10)
Microsoft/Embry Riddle (3)	AFRL/Space Camp (100)	PPCC (7)	SBDC (27)
govIRG (7)			PTAC (11)
Viasat (4)			C-TRAC (10)
ATA (4)			
Linqest (5)			
SAIC* (2)			
Omitron (15)			
Braxton (32)			
Intelsat (2)			
Deloitte (44)			
SpaceNav (1)			
<b><u>12</u> commercial businesses with <u>136</u> employees</b>	<b><u>2</u> Government entities with <u>101</u> employees</b>	<b><u>2</u> Educational entities with <u>11</u> employees</b>	<b><u>4</u> Nonprofits with <u>58</u> employees</b>
<b><i>20 Total Organizations with 306 Total Employees</i></b>			
* Entities that did not provide revenue or capital expenditure information. They were incorporated into the economic impact analysis with employee counts only, which were provided by Jeny Fausset.			

### The Employment Effect

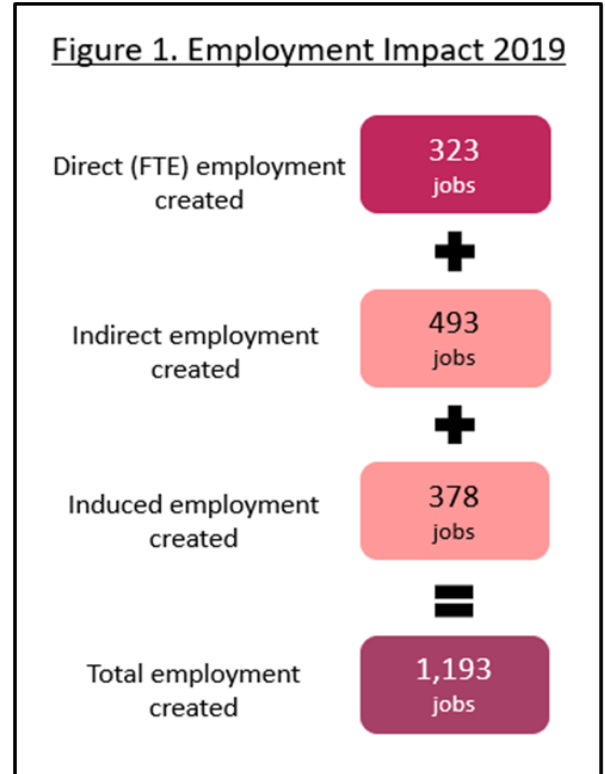
As shown in Table 1, the total number of employees at Catalyst Campus in 2019 was 306. IMPLAN does not distinguish between full and part time employees and does its own calculations off of the given headcount. Also, IMPLAN adds in some level of employment for the capital expenditures that occur during the study year. For this reason, total employment generated by IMPLAN is typically slightly different than what is provided by the client. These employees comprises the “total direct employment” impact in Figure 1. In 2019, the direct employment at Catalyst Campus accounted for 323 jobs.

However, we know that the twenty organizations at Catalyst in 2019 did business with other businesses. This business-to-business activity generates employment at other businesses (outside of Catalyst Campus proper). This incremental business-to-business employment generated an additional 493 jobs within El Paso County and the state of Colorado. These 493 jobs comprise the “indirect employment effect” seen in Figure 1.

Likewise, the existence of Catalyst Campus generated an estimated 378 “induced” jobs through the household income of the direct and indirect employees' spending within the community and across Colorado. Hence, the total employment impact through direct, indirect and induced effects for Catalyst Campus in 2019 was 1,193 jobs. In simplified terms, this means that because of Catalyst Campus, there are 1,193 more jobs in the region and state. The majority of those jobs are of course within El Paso County, but there is likely a small amount of spillover into other Colorado counties through commuting or business-to-business activity that occurs outside of county lines.

### The Labor Income Effect

The employment effect described above has an associated labor income effect, better know as “wages and benefits.” IMPLAN calculates these based off of the specific industry codes and other parameters that are provided such as total revenue and/or total number of employees (such that the size of the business can be estimated). Table 2 below shows the employment dollars associated with the jobs generated by Catalyst Campus. As seen below, the direct labor income effect for individuals who worked at Catalyst Campus in 2019 was \$43,732,633. The indirect, or business-to-business impact was almost \$28 million, and the induced impact was \$17.6 million for a grand total of \$89,272,321. Economists are interested in this labor income effect because of the heavy influence consumer spending has on the economy at large.



Impact Type	Employment (headcount)	Labor Income (\$)
Direct Effect	323	\$43,732,633
Indirect Effect	493	\$27,936,022
Induced Effect	378	\$17,604,667
<b>Total Impact</b>	<b>1,193</b>	<b>\$89,273,321</b>

**The Value Added**

Value added another parameter calculated by IMPLAN, and is the difference between the total outputs (or revenue) and their intermediate inputs (the amount the producer has to spend in order to conduct business). This impact measures the added value to the gross regional product (GRP), which is the same as national gross domestic product (GDP), but for a local and/or state level. A good way to think of this is as the total “net” impact of Catalyst Campus without double counting the intermediate goods used to produce a good or service.

Table 3 below shows the direct value add (\$59,266,809), the business-to-business or “indirect” value add (\$42,900,732) and the induced value add (\$32,606,138). The total contribution of Catalyst Campus, its affiliated businesses, and its consumer spending to the gross regional product comes to \$134,773,679.

**Total Output**

Output describes the total value of industry production and it is set in producer prices. Output measures the increase in business sales revenue for Catalyst Campus tenants, and it does not subtract out the costs of intermediate inputs as does the value added measure. Direct output (or revenue) for Catalyst Campus tenants in 2019 was \$130,915,560 as shown in Table 3. The associated indirect, or business-to-business revenue, was \$84,238,279 for those businesses who did business with Catalyst tenants. The incremental output generated by employed consumers demanding goods and services in the region was \$56,485,720. The grand total between the direct, indirect and induced impacts in terms of total goods and services emanating from Catalyst Campus came to \$271,639,559.

<b><u>Table 3. Total Catalyst Campus Economic Impact within El Paso County and Surrounding Counties 2019</u></b>				
<b><u>Type of Impact</u></b>	<b><u>Employment (headcount)</u></b>	<b><u>Labor Income (\$)</u></b>	<b><u>Value Added (\$)</u></b>	<b><u>Output (\$)</u></b>
Direct Effect	323	\$43,732,633	\$59,266,809	\$130,915,560
Indirect Effect	493	\$27,936,022	\$42,900,732	\$84,238,279
Induced Effect	378	\$17,604,667	\$32,606,138	\$56,485,720
<b>TOTAL IMPACT</b>	<b>1193</b>	<b>\$89,273,321</b>	<b>\$134,773,679</b>	<b>\$271,639,559</b>

**Which Metric to Use**

The “total economic impact” of a business or cluster of businesses can be stated as either the value added to gross regional product, or it can be the total output generated by all the relevant businesses. Which one to use depends on the context of how you are using the results AND how you describe and define what you are using. If you wish to highlight the total incremental revenue that is generated within El Paso County (with some spillover to other counties), you would use the \$271 million impact. If using this metric, it is important to explain that this is gross revenue which includes the revenue of intermediate goods and services used in the final production of the studied business or business cluster.

If your intent is to showcase the “net” impact of Catalyst Campus on the gross regional product in El Paso County (with some spillover to other Colorado counties), you would use the \$135 million impact.

At a more granular level, it can also be helpful to showcase that Catalyst Campus directly and indirectly generates 1,193 jobs and approximately \$89.3 million in associated wages and benefits.

**Taxes Paid**

All the for-profit entities at Catalyst Campus pay taxes including payroll taxes, property taxes, and sales and use taxes (to name a few). IMPLAN calculates the direct taxes paid, the “indirect” taxes paid by the business-to-business activities, and the “induced” taxes paid by consumers on the goods and services they purchase. Table 4 below shows the breakdown of taxes as calculated by IMPLAN. It is important to note that these are approximations calculated by the IMPLAN software using the information they have for city, county (including special districts), state and federal tax rates.

If the total direct value added from Catalyst tenants alone is divided by the total direct taxes paid, the implied taxation rate is 19.3%. This is not the actual tax rate. It is only a rough approximation so that one can gauge the percentage of taxes paid relative to the direct contribution Catalyst tenants make to the gross regional product within El Paso County with some spillover into other counties.

**Table 4. Tax Impact for Catalyst Campus within El Paso and Other CO Counties, 2019**

<b>Impact</b>	<b>Sub County General</b>	<b>Sub County Special Districts</b>	<b>County</b>	<b>State</b>	<b>Federal</b>	<b>Total</b>
Direct	\$236,242	\$440,775	\$119,040	\$1,524,904	\$8,629,730	\$10,950,691
Indirect	\$312,725	\$524,633	\$157,053	\$1,274,976	\$5,794,813	\$8,064,200
Induced	\$546,063	\$938,056	\$273,048	\$1,470,123	\$3,834,946	\$7,062,237
<b>TOTAL</b>	<b>\$1,095,030</b>	<b>\$1,903,465</b>	<b>\$549,141</b>	<b>\$4,270,004</b>	<b>\$18,259,489</b>	<b>\$26,077,128</b>

**The Multiplier**

Economists and government officials both know that any one business has this “spillover” or “multiplier” effect emanating from the business-to-business transactions and the employee consumption effects. It is for that reason that tax incentives are often granted. In the current scenario, it is also the reason that government has stepped in rather aggressively to provide PPP loans to businesses and incremental unemployment or other stimulus benefits to individuals.

In the case of Catalyst Campus, the multiplier effect is skewed a bit high but this is not surprising given the composition of businesses at the Campus. Any government dollars that come from the federal government, in particular, have a higher multiplier. The reason is that these are “new” dollars from outside of the region that feed into the regional economy. Those new dollars pay for local leasing space, employment, capital expenditures, research and development that can spinoff other businesses, and so forth. The graph in Appendix B shows the extent of this benefit with a federal government multiplier of 3.17, which is the highest multiplier of the 536 IMPLAN industry codes.

For context, the average multiplier for all industries as calculated by IMPLAN for 2019 was 1.27. Since there appears to be a high likelihood of replication of Catalyst Campus in the state of Maryland, it may be helpful to know their multiplier is slightly higher at 1.34.

## Final Thoughts

There is no question that Catalyst Campus provides tremendous benefits in terms of contribution to the local and state economies. What is likely understated in this analysis is the further benefit of the “ecosystem” Catalyst provides for most if not all of its tenants. Like businesses learn from and promote each other and that has immeasurable benefit that is difficult to capture. Even the SBDC, a non-DoD entity, provides business consulting services that bolster other businesses and the economy at large. The same can be said for the educational institutions at the campus albeit with further downstream benefits. “Catalyst” is indeed an appropriate name for this business cluster and the economic impact is likely to grow and multiply at a higher rate as more synergistic activities manifest in future years.

**Appendix A. Economic Impact for El Paso County Alone**

The model and results above that measured the economic impact of Catalyst Campus had a geographic region of El Paso County and all surrounding counties in the state of Colorado. Because we know that many people commute into El Paso County, but reside elsewhere, it is a more accurate model if we include surrounding counties. Likewise, many of the businesses that engage with Catalyst Campus tenants may be outside the boundaries of El Paso County.

Having said that, it can be helpful for a variety of reasons to look at the economic impact of Catalyst Campus within the boundaries of El Paso County alone. Table 5 below shows the associated results. Both the total economic impact (Table 5) and the tax results (Table 6) are shown below.

<b>Table 5. Total Economic Impact for Catalyst Campus within El Paso County Alone</b>				
<b>Impact</b>	<b>Employment (headcount)</b>	<b>Labor Income (\$)</b>	<b>Value Added (\$)</b>	<b>Output (\$)</b>
Direct	265	\$41,065,663	\$56,599,839	\$125,837,539
Indirect	349	\$16,996,008	\$26,053,275	\$53,290,170
Induced	272	\$11,636,937	\$22,287,371	\$38,492,736
<b>TOTAL IMPACT</b>	<b>886</b>	<b>\$69,698,608</b>	<b>\$104,940,485</b>	<b>\$217,620,446</b>

<b>Table 6. Tax Results for El Paso County Alone</b>						
<b>Impact</b>	<b>Sub County General</b>	<b>Sub County Special Districts</b>	<b>County</b>	<b>State</b>	<b>Federal</b>	<b>Total</b>
Direct	\$236,242	\$440,775	\$119,040	\$1,524,904	\$8,629,730	\$10,950,691
Indirect	\$169,853	\$315,244	\$85,351	\$808,548	\$3,460,094	\$4,839,089
Induced	\$365,087	\$673,978	\$182,961	\$1,090,964	\$2,532,521	\$4,845,511
<b>TOTAL</b>	<b>\$771,181</b>	<b>\$1,429,997</b>	<b>\$387,352</b>	<b>\$3,424,416</b>	<b>\$14,622,345</b>	<b>\$20,635,291</b>



Appendix B. Federal Government Multiplier

