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## Moving Cleveland Above the Trend: Innovation & Talent

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# MOVING CLEVELAND ABOVE THE TREND: INNOVATION & TALENT

A recent report conducted by the Center for Economic Development includes a model for understanding and predicting economic growth in U.S. mid-sized regional economies to analyze structural and policy-based factors among similar regions. The Center used factor analysis as a data-reduction technique to identify the influences in mid-sized regional economies. This statistical analysis found five factors influencing the mid-sized regional economies reviewed for this report. They are 1) Innovation and Talent, 2) Entrepreneurship in High-Cost Areas, 3) New Residential Centers, 4) Retirement Destinations, and 5) Polarization. This was followed by an analysis to determine the relationship between these factors and the regional growth in employment, gross regional product (output), and per capita income. This brief outlines the primary takeaways of this analysis as it relates to innovation and talent and explores how the five-county Cleveland-Elyria metro areas (the Cleveland Region) can incorporate policies and programs similar to those in other regions in order to propel its metros forward.

The 16 variables listed account for a quarter of the performance of a metro areas success and growth with the top five variables being the percentage of STEM occupations in a given region, the percent of a region's population that has a bachelor's degree, the percent of high-tech jobs, patent applications per employee and the percentage of degree holding new residents (a.k.a Brain Gain).

Table 1 shows how Cleveland and the other Northeast Ohio metros rank based on Innovation and Talent variables. Cleveland closely trails most of its regional competitors across the top five variables in innovation and talent.

The Cleveland-Elyria metro area has made strides toward becoming a more innovative region as high-quality tech talent increases each year.

According to CBRE's Scoring Tech Talent Report, between 2013 and 2018, Cleveland's tech talent pool increased by 17%, but the area has struggled to keep up with the number of potential new tech employees. Cleveland added 5,230 tech jobs between 2013 and 2018 but had 9,427 tech graduates that were looking to fill those positions. This unrealized opportunity, or mismatch, should incentivize new companies to come to the area and tap into the talent pool, thereby building the tech industry in Cleveland. Although Cleveland has made significant progress toward building an innovation and technology industry within its economy, it is not yet a tech hub attracting people across the U.S. and the world.

**TABLE 1: INNOVATION & TALENT FACTOR VARIABLES FOR NORTHEAST OHIO METROS RANKED OUT OF 135**

Innovation & Talent Variables	Akron, OH	Canton-Massillon, OH	Cleveland-Elyria, OH	Youngstown-Warren-Boardman, OH
Stem Occupations	85	132	60	123
College Attainment - Bachelors	47	122	70	120
High-Tech Jobs	24	122	32	121
Patents	44	57	55	108
Brain Gain	90	120	93	127
SBIR/STTR	51	108	35	96
High-growth Firms	43	107	27	110
International Talent	84	135	68	132
Productivity in Service Sector	87	125	25	129
Venture Capital	43	57	21	90
Industry R&D	57	113	61	132
Traded Industries	26	1	111	2
Disconnected youth*	118	73	107	31
Internet Access	71	69	93	114
Virtual Currency	102	34	18	88
Coworking	27	73	53	88

\* A high ranking is negatively correlated with the factor of Innovation and Talent

The economic and social uncertainty from the pandemic could reshape the landscape of policy and program opportunities for places like Cleveland in the years to come.

Although Cleveland does not perform as well as other leading metro areas in the Brain Gain category, we are comparable to other metros in high-tech talent and STEM occupations. Compared to the other metro areas that are succeeding in Innovation and Talent, Cleveland is on pace with Aspirational metro regions, with around 11% in STEM occupations and 0.2% high-tech jobs, compared to 11.7% STEM occupations and 0.3% high-tech jobs in Charlotte, NC. The major challenge in Cleveland is retaining its highly educated talent.



**TABLE 2: TOP 5 INNOVATION & TALENT FACTOR VARIABLES FOR ACHIEVABLE METROS**

	Innovation & Talent Variable				
	Percentage of STEM Occupations	Percentage of Bachelor's Degree Attainment	Percentage of High-Tech Jobs	Patent Applications Per Employee	Brain Gain – New residents as a % of the population
Cleveland-Elyria, OH	11%	19%	0.26%	0.07%	0.84%
Cincinnati, OH-KY-IN	12%	20%	0.29%	0.15%	1.24%
Columbus, OH	12%	23%	0.26%	0.07%	1.08%
Pittsburgh, PA	11%	21%	0.30%	0.07%	0.99%
Indianapolis-Carmel-Anderson, IN	12%	23%	0.24%	0.15%	1.03%
Kansas City, MO-KS	13%	23%	0.30%	0.16%	1.59%

## WHERE CAN CLEVELAND LOOK TO FOR INSPIRATION:

Fortunately for Cleveland, many metro areas are setting attainable examples of how to attract and retain high-quality tech talent to their areas. These metro areas include Columbus, OH; Cincinnati, OH; Indianapolis, IN; Kansas City, MO; and Pittsburgh, PA. All of these metro areas are home to thriving universities that foster and keep talent, as well as revitalization efforts to create a fun place to live and work.

When considering the combination of factors that can make a region a successful engine of innovation – things such as an educated workforce, strong research capabilities, access to capital, ability to attract R&D dollars, and a structure that connects all of these elements into an ecosystem that is opportunistic – what might be the impact of the pandemic on these efforts?

Achievable metro areas are similar to the Cleveland region, they scored better on certain factors, and only slightly outpaced the Cleveland region. These Achievable regions might offer Cleveland the most helpful short-term strategy examples as it looks to realize similar success.

## STRONG UNIVERSITY CONNECTIONS:

Most of these metros have large research universities, which are significant drivers for economic tech success. Cleveland, on the other hand, cannot compete with these highly acclaimed universities. For example, when looking at University R&D, Pittsburgh scores seventh out of 135, attracting an average of \$1.2 billion in research dollars from 2015 to 2017. This sizeable investment can be attributed to Carnegie Mellon and the University of Pittsburgh. Columbus, home to the Ohio State University, ranks 12th and attracts over \$833 million.

Cleveland, on the other hand, ranks 43rd, attracting \$480 million. Research universities like Carnegie Mellon and The Ohio State University are much stronger economic drivers than universities like Case Western and Cleveland State

University, making it difficult to compare these metro areas fairly. Yet, it isn't only the attraction of research dollars that make universities drivers of success in these metro areas. Strong connections between the universities and local tech companies also are contributing factors. In Ohio, both Columbus and Cincinnati have been investing in and advancing the development of their own centers of innovation in their regions.

In 2019 the University of Cincinnati launched the 1819 Innovation Hub. A collaboration between the University of Cincinnati and Cincinnati Children's Medical Center, the Hub works with companies such as Kroger to create curriculum preparing tech graduates for the field. But the actions and strategies around the innovation hub began long before 2019. But the groundwork was laid in 2004 as leaders from numerous organizations created a strategic plan to concentrate investment in the uptown area around an innovation corridor. That planning helped to seed the partnership between University of Cincinnati and Procter & Gamble to create the 1819 Innovation Hub in the corridor. And now the Innovation Hub is set to serve as an anchor to a planned innovation district announced in March of 2020. JobsOhio has committed up to \$100 million over the next 10 years to accelerate the newly created the Cincinnati Innovation District.<sup>1</sup>

Billed as Kansas City's 'Front Door for Innovation,' the Keystone Innovation District is intended to be focused on using design as the unifying idea. This includes in programming, partnership and initiatives to smart cities, product development, shaping the future of work, and other broader community challenges, understanding that regional collaboration will make Kansas City more competitive.<sup>2</sup>

<sup>1</sup> <https://www.soapboxmedia.com/devnews/Cincinnati-Innovation-District.aspx>

<sup>2</sup> <https://www.keystonedistrict.org/the-vision>



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Not far away in Pittsburgh, an Innovation District was created where Carnegie Mellon and the University of Pittsburgh partnered with local entrepreneurs and tech startups to help their tech students network and conduct research with companies looking to hire. By creating strong partnerships between universities with ample tech talent and local tech companies, universities can build their curriculum around what employers are looking for, and students can network to find employment. As a result, these areas effectively eliminate brain drain and keep more qualified tech talent in the region.

Cleveland has been working to develop and build an innovation district to serve as a regional asset and draw. Much like Cincinnati and Columbus, Cleveland has existing regional assets in its world class hospitals, a mix of universities across the metro area and strong philanthropic community. Focused in Cleveland's MidTown Neighborhood, and along the Health-Tech Corridor, the planned innovation district includes "mixed-use development where researchers and students can collaborate in the same place and have the overall development fit within the surrounding communities."<sup>3</sup> Creating an innovation hub, or planned innovation district in the city that connects to hospitals, universities, and industry could retain some of the talent currently leaving for nearby cities. Current efforts should be focused on exploring strategies that connect existing resources in the region including tapping into the potential workforce in the neighborhoods surrounding the planned district.

## PHYSICAL PROXIMITY:

By all understanding, the role of location for innovation has been important in determining innovation performance. What these locational advantages have traditionally brought to firms – special relationships with local businesses, access to a skilled and educated workforce, and easy access to local institutions – may no longer hold the same power in a post-pandemic world. Given this, does physical proximity have the same value as it did pre-pandemic?

A July 2020 article by McKinsey argues that innovation is more important than ever and will be critical in a post-COVID world. Reporting on their findings, McKinsey stated that of the 200 organization that were surveyed more than 90% indicated that "they expect the fallout from COVID-19 to fundamentally change the way they do business over the next five years..."<sup>4</sup>

And though overall 70% of their respondents also felt that there was great opportunity for growth, that varied by industry. Relevant for Cleveland, respondents in the industries of Healthcare Systems and Services, Pharma and Medical Supplies, as well as Technology said there would be opportunities for growth as a result of the crisis brought on by the pandemic with 71%, 73% and 85% respectively. What can Cleveland do to help realize the potential opportunity? Could a fully realized innovation corridor help firms in the health systems and medical supplies sectors realize growth and advance innovation but without the need for firms to move to Cleveland to take advantage of the benefits that such spaces provide? What would that look like? If you are in IT or process enhancement, maybe distance is more acceptable whereas in other industries, proximity cannot fully be overcome. This has significant implications for how Cleveland could adjust the landscape of innovation advancement along with any related physical development.

At the same time, news stories abound with reports of the new found freedom of high-tech talent to move anywhere with the sudden shift to remote work – a shift that is expected to last well beyond the pandemic in many industries. An August 2020 article from Bloomberg reports of a significant Tech exodus and what that might mean for places such as Silicon Valley. Arguing that the clustering of talent has long been the Bay Area's 'secret sauce' for innovation, the article asks what the pandemic will do to that long-established dynamic.<sup>5</sup> The pandemic may allow them to grow by attracting talent and a workforce that may not need to live in the high cost of living places in which these companies have headquarters. And if this clustering of talent can survive through a network rather than geographic clustering, what might that mean for places like Cleveland that are attractive for their quality of life and cost of living. Could Cleveland reshape itself as a satellite location for tech companies by attracting talent based on quality of life and affordability?

Other shifts that may further impact location decisions of both workers and companies include the availability and acceptance of remote internships and the ability of companies to tap young talent that might forego college for experience.

<sup>3</sup> <https://www.cleveland.com/realestate-news/2020/10/developer-chosen-to-design-innovation-district-in-clevelands-midtown-neighborhood.html>  
<sup>4</sup> <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/innovation-in-a-crisis-why-it-is-more-critical-than-ever>  
<sup>5</sup> <https://www.bloomberg.com/news/articles/2020-08-18/the-silicon-valley-tech-exodus-could-be-a-plus>



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According to an August 2020 Bloomberg article, Silicon Valley start-ups are hiring fall interns, organizing virtual career fairs, and even offering cash investments in entrepreneurs to take a gap year from school to build a company.<sup>6</sup> Both appear to be becoming increasingly desirable. Whether they will outlive the COVID pandemic, and all of the restrictions that have come with it, remains to be seen. But the willingness to invent new ways of engaging with more talent creates the potential for Cleveland to emphasize its advantage in its rich cultural offerings, viable arts, first class cuisine, professional sports and entertainment, access to the lake, nationally recognized parks systems and access to national parks, and affordable cost of living.

## CAPTURING NEWLY MOBILE TALENT:

The pandemic has created yet another dynamic in the movement and mobility of talent – those that are newly mobile because they no longer have jobs. As human capital firm I4CP states in a recent blog article, “The layoffs have hit younger workers hardest. In times like this, the first people that are let go are the gig workers, the contract workers, and the most junior, least experienced workers.”<sup>7</sup>

Furthermore, people are generally willing to consider a wider range of options and opportunities if there is greater uncertainty in their employment prospects – meaning, places like Cleveland may become increasingly attractive and viable options as individuals rethink their employment prospects

In a move reminiscent of the homestead programs of the 19th century when settlers were given land for their willingness to move West, some states and cities that have been losing population are now offering money for degreed talent to relocate. To forestall further depopulation in the state, Vermont’s Republican governor, Phil Scott, signed a bill that went into effect in 2019 offering to pay up to \$10,000 to individuals if they relocate to the state. The Remote Worker Grant Program grants can be used to cover moving, living and working expenses, including relocation, computer software and hardware, broadband internet and access to a co-working space.<sup>8</sup> An update on the state’s webpage indicates that as of January 2020, the program has awarded all of the funds that have been allocated.

Vermont is not the only one. Maine, Alaska also offer grant programs and tax incentives to move there. While Tulsa, Oklahoma; Newton, Iowa; and North Platte, Nebraska offer incentives for remote workers, relocation to work at local companies and new home buyer incentives.<sup>9</sup> In Ohio, the city of Hamilton is looking to attract recent college graduates to the city with its Talent Attraction Scholarship program, which offers cash incentives of up to \$5,000 to young professionals who move there.<sup>10</sup>

And while not new, the rising numbers of digital nomads has increased during the pandemic. Now, many countries are rewarding these remote workers with Digital Nomad Visas – long term visas that allow remote workers to stay, visit and even work long past the normal 30 or 90 day limits many countries impose. Currently Barbados, Bermuda, Anguilla, Estonia, Dubai (UAE), and Georgia all offer digital nomad visas.<sup>11</sup>

Cities like Cleveland will need to compete on a global scale for future remote workers not just with other U.S. locations, but across the globe. In these cases, the cost of doing business, affordability of the location, cultural amenities and experiences will all play a role in decisions of where to go.

### KEY TAKEAWAY

- **Cleveland could eventually become an attractive location, once the option of working from home becomes more prevalent.**
- **Cleveland should consider offering incentives to entice people live and work in the area.**
- **A new administration means potential for more immigrant populations to attract to universities and companies.**

<sup>6</sup> <https://www.bloomberg.com/news/articles/2020-08-17/startups-tap-a-new-talent-pool-pandemic-weary-college-students>

<sup>7</sup> <https://www.i4cp.com/coronavirus/how-the-pandemic-is-changing-the-talent-landscape>

<sup>8</sup> <https://thinkvermont.com/remote-worker-grant-program-2019/>

<sup>9</sup> <https://www.cnbc.com/2019/08/31/6-us-cities-and-states-that-will-pay-you-to-move-there.html>

<sup>10</sup> <https://www.wcpo.com/news/local-news/butler-county/hamilton/hamilton-will-pay-college-graduates-to-move-there>

<sup>11</sup> <https://www.bbc.com/worklife/article/20200824-the-new-residency-schemes-inviting-workers-abroad>



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## TAKEAWAYS

No one is sure how these issues will play out over time as so much remains uncertain with the impact and duration of the pandemic, how severely businesses will be impacted, and ultimately how permanently perceptions about how and where we work might change. However, we think that it is an important exercise to explore what possibilities may arise in the future as a result of the shifting landscape. When the pull of locating in Silicon Valley no longer holds the same weight for prospective talent, and decisions on where to locate can be broadened to include working from anywhere, places like Cleveland can be an attractive location. The combination of the development of physical space in a metro to coalesce innovation around still holds promise. But Cleveland should also be pursuing the opportunities to attract talent that can live and work anywhere. It should consider providing incentives for people to come to the area

to live and work, connections with local businesses and support services. With years of population loss, maybe it is time to put more aggressive programs directed at attraction of new talent to the area into play. Along with incentivizing stronger connections between local universities and companies, attracting technologies companies to the region and supporting the continued investment and leadership support for technology hubs and district across the region.

With a new administration providing indications that immigration policies will be one of its top priorities, there is a hope for a future return to levels of international immigration seen prior to the Trump administration and where communities with established immigrant populations could attract a wave of new talent from abroad to both its universities and as talent for local companies and high tech hubs.

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