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Globalizing Cleveland: A Path Forward

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Cleveland State University



The Center for Population Dynamics

Globalizing Cleveland: A Path Forward

By Richey Piiparinen, Senior Research Associate, The Center for Population Dynamics at the Maxine Goodman Levin College of Urban Affairs at Cleveland State University; and Jim Russell, Research Consultant, The Center for Population Dynamics

May 2014



Photo: Courtesy of <https://www.flickr.com/photos/doyt/>

The Center for Population Dynamics at Cleveland State University's Maxine Goodman Levin College of Urban Affairs aims to help partner organizations competitively position the region for economic and community development. It will do so through the lens of migration, applied demography, and culture.

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Executive Summary

“Globalizing Cleveland: A Path Forward” is Part 2 of a three part series from the Center of Population Dynamics at Cleveland State University. Part 1, entitled “From Balkanized Cleveland to Global Cleveland”¹, sketched a theory of change for Greater Cleveland relating to economic and community development. Part 2 attributes metrics to this theoretical frame and benchmarks where the Cleveland metro stands on these metrics. Part 3 will offer strategic pathways that will help Greater Cleveland progress into an increasingly globalized world.

Key findings from Part 2 include:

- Greater Cleveland’s emergent knowledge industry, measured by **STEM/Health Care employment, increased its job totals by nearly 25% from 2003 to 2013.**
- A region’s growing knowledge economy translates into wage growth. **The metro’s per capita income increased from \$33,359 in 2003 to \$44,775 in 2012, a gain of 34%.**
- **Also driving up per capita income, Greater Cleveland is experiencing a brain gain.** From 2000 to 2012, the Cleveland metro gained over 60,000 people aged 25 and over with a college degree. Most of these gains, approximately 40,000, were made from 2006 to 2012.
- **Fueling this brain gain are young Clevelanders.** The number of college-educated 25- to 34-year-olds in Greater Cleveland increased by 23% from 2006 to 2012, with an 11% increase occurring from 2011 to 2012.
- **The skill level of the metro’s young adult workforce is world class.** In 2009, according to Pitt economist Chris Briem, 15% of Greater Cleveland’s workers aged 25 to 34 had a graduate or professional degree, which ranks the city 7th in the nation, ahead of Chicago, Seattle, and Austin.
- **The sources of Cleveland’s brain gain are geographically diverse.** Nearly 50% of educated individuals coming into Cuyahoga County from 2007 to 2011 did so from another state. When it comes to net migration, Atlanta, Detroit, and Pittsburgh were the biggest feeders for those arriving with a bachelor’s degree, while Chicago, Manhattan, Brooklyn, and Pittsburgh sent the most in-migrants with a graduate or professional degree.
- **Concerning international brain gain, half of the immigrants that came into Cuyahoga County from 2007 to 2011 were college educated.** Out of those educated migrants, 64% were Asian, 14% were European, and 8% were African. Sixty percent (60%) of all educated migrants had graduate or professional degrees.
- The landing spots for young and educated migrants, termed “Global Neighborhoods”, included parts of Downtown, Ohio City, Tremont, and Edgewater, as well as inner-ring suburbs of Lakewood and Cleveland Hts. Parts of outer-ring suburbs are also represented, including Westlake, Mayfield Hts., Beachwood, and Olmsted Township.
- **The parts of Cleveland experiencing the greatest brain gain are also where the greatest wage increases are occurring.** Nearly 50% of the residents of Cleveland’s Global Neighborhoods work in emerging industries, particularly the “eds and meds”. The number of Global Neighborhood residents who made more than \$40,000 a year increased by nearly 50% from 2002 to 2011.

¹ See: <http://www.globalcleveland.org/images/researchWhitepapers/FromBalkanizedClevelandtoGlobalClevelandAWhitePaper.pdf>

A Path to Progress

“[T]he true goal of economic development,” notes University of Texas economist Brian Kelsey, is being able to “measure prosperity”, particularly per capita income growth². Devising a regional policy requires an understanding of the pathways to income growth. A report by the Federal Reserve Bank of Cleveland called “Altered States: A Perspective on 75 Years of State Income Growth”³ identifies these pathways.

The report analyzed the patterns of *per capita income* growth across the United States from the 1930s to 2004. The study found that up to the mid-1970s, state incomes converged—i.e., the gap between the richest and poorest states shrank—as labor dispersed to where pay was lower, particularly down South. This pattern of job and income loss in the industrial North to elsewhere is known as “capital equalization”.

However, from the mid-1970s onward, income convergence slowed, as high-income states like Connecticut and Massachusetts began adding wealth at faster rates than the rest of the country. The Cleveland Fed found that three factors were predictive of why such states were separating from the pack. The factors were *industry specialization*, *educational attainment*, and *patents*.

According to the Cleveland Fed report, Ohio ranked 13th in relative income in 1930. By 2004, the state ranked 23rd. The reasons for Ohio’s drop were two-fold: below average educational attainment rates and a specialization in slower-growth industries. That said, Ohio had a “history of above-average patent levels”, which drove its income growth by a factor of 10 percent. This history of innovation in industrial markets is called the “Legacy Economy”⁴.

Given that Greater Cleveland is Ohio’s largest regional economy⁵, one can argue that as the Cleveland metro goes, so goes the state. Specifically, Cleveland needs to grow its knowledge economy, which means increasing its share of educated residents. If a critical mass of talent can be clustered, Greater Cleveland’s legacy of innovation can gain currency.

² See: <http://civicanalytics.com/economic-development-metrics>

³ See: http://www.clevelandfed.org/about_us/annual_report/2005/PDF/Essay2005.pdf

⁴ See: <http://www.psmag.com/navigation/business-economics/geography-legacy-economy-mapping-next-boomtowns-76661/>

⁵ Note: Cleveland’s gross domestic product ranked 28th in nation in 2012, the highest ranking in the state. Source: US Bureau of Economic Analysis via Telestrian.

Cleveland's Legacy Economy

How does industry specialization and educational attainment interweave to create economic development? Simply, a knowledge workforce, or the *supply* of skilled labor, feeds and is fed by a knowledge economy, or the *demand* for skilled labor, with new or evolving industries the byproduct. When churning, this system of innovation will feed on itself: new industries mean new jobs, and new jobs attract new talent, which sparks yet another round of new ideas and new products.

Where the Cleveland metro⁶ stands in its progression will be discussed below. Key metrics will be compared against peer metros, particularly Columbus and Pittsburgh. The “Steel City” is a useful contrast due to the modernization of its Rust Belt economy. Columbus is another valuable comparison, as the region, along with Cleveland and Cincinnati, represent Ohio’s axis of globalization.

Industry Specialization: Creating Demand

Regional economies are not grown from local consumption, which is, ultimately, circulating money within the region. Rather, job and wage growth comes from what a region produces that others around the globe demand. This is termed a “tradable” economy.

Manufacturing remains a key tradable sector in Greater Cleveland. However, technological advances have made the industry more efficient, which means it takes less people to make a product. For example, in the 1950s an auto worker made on average seven cars per year. This number increased to 13 by the 1990’s and 28 today⁷. The effect of the increased productivity is a loss of jobs, particularly low-skilled ones. This job loss has implications, including out-migration and a depreciation of real estate, as well as a slowdown in the local consumer economy.

What is Greater Cleveland to do? Of primary importance is a need to increase its share of tradable knowledge jobs in evolving or emerging industries, such as advanced manufacturing, information technology, life sciences, medical devices, and new materials. That is because knowledge jobs are growing and have larger multiplier effects on a local economy. For each new high-tech job in a city, an additional five jobs are created in the local service industry⁸, which could help offset losses due to automation.

This doesn’t mean Cleveland needs to aspire to be the next Silicon Valley. Such “copycat” economic development is rarely, if ever, successful. Instead, Cleveland needs to become a more highly-skilled version of itself. Writes UC Berkeley professor John Zysman⁹:

“[Economic development] strategy choices emerge from two complementary perspectives. One perspective, building from the past, asks how existing community resources can be deployed and redeployed in new market and technology circumstances. A second perspective, imagining the future, seeks to envision and generate radical new trajectories of growth. . .”

The past that will drive Cleveland’s future relates to the region’s industrial and health care prowess. Despite its brawny reputation, manufacturing accounts for 70% of the nation’s research and development and 90% of its patents¹⁰. This partly explains why Cleveland leads Pittsburgh and is far ahead of

⁶ The Cleveland metro includes Cuyahoga, Lorain, Lake, Medina, and Geauga counties.

⁷ See: Moretti, E. 2012. *The New Geography of Jobs*.

⁸ See: <http://sloanreview.mit.edu/article/the-multiplier-effect-of-innovation-jobs/>

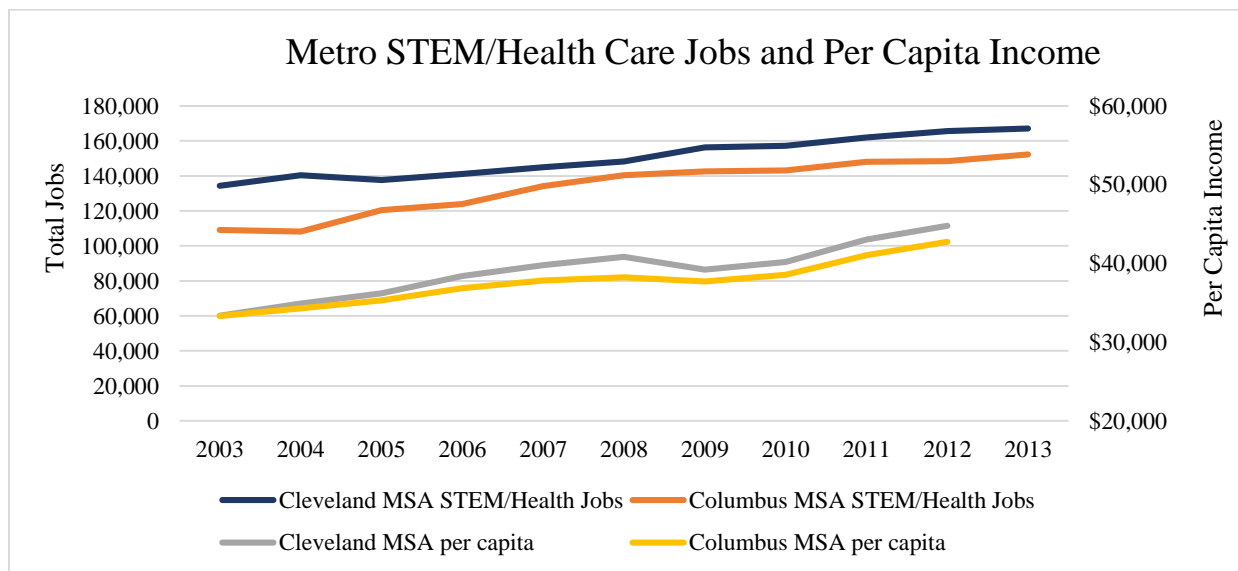
⁹ See: <http://brie.berkeley.edu/publications/Escape4Distribution.pdf>

¹⁰ See: <http://www.commerce.gov/blog/2012/05/31/rd-patents-are-key-manufacturing-drivers-chief-economist-mark-doms-tells-national-as>

Columbus when it comes to regional patents produced from 2000 to 2011¹¹. As for health care, the sector has traditionally been thought of as a non-tradable—meaning health services are mostly locally consumed. Today, however, cities with a powerful “eds and meds” gravity like Cleveland have been able to pull in global demand. Here, Cleveland still is in the business of exports, but instead of products, the region is exporting longevity.

This workforce DNA that runs through Greater Cleveland—i.e., a mix of applied technology and health sciences—has recently been federally classified as a cluster¹². The cluster combines science, technology, engineering, and math (STEM) occupations, or the backbone of industrial innovation, with health practitioner and health support services. Figure 1 charts Cleveland’s and Columbus’ job growth in the STEM/Health Care cluster against the regions’ per capita income. Note the two metro’s job convergence up until 2008, followed by a higher rate of growth for Cleveland post-Recession. These jobs pay well, with annual average salaries in Cleveland ranging from \$62,000 to \$72,000 in 2013¹³, which helps explain the per capita income differences between the metros. And, as shown below, Cleveland’s knowledge job growth coincides with a rise in regional educational attainment.

Figure 1: Source, Occupational Employment Statistics, U.S. Bureau of Economic Analysis



Educational Attainment: Creating Supply

A region’s rate of educational attainment—calculated as the percent of the population with a 4-year degree or higher—predicts its economic well-being. Also, an educated worker’s presence has a multiplier effect on the regional economy. Specifically, earnings of a worker with a high school education rise by 7% as the share of college graduates in his or her city increases by 10%¹⁴.

Human capital formation is therefore important, but for a metro to get “smarter” it needs to get a good handle on its existing talent profile. The most common way to do this is to examine the *educational*

¹¹ See: http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cls_cbsa/allcbsa_gd.htm

¹² See: <http://blogs.census.gov/2013/09/09/who-is-a-stem-worker/>

¹³ Note: The salaries exclude health support services.

¹⁴ See: Moretti, E. 2012. *The New Geography of Jobs*.

attainment rate for residents 25 and over. Here, Greater Cleveland (28.5%) ranks below the national rate (29.1%), the Pittsburgh metro (30.5%), and well below the Columbus metro (34.1%) for 2012.

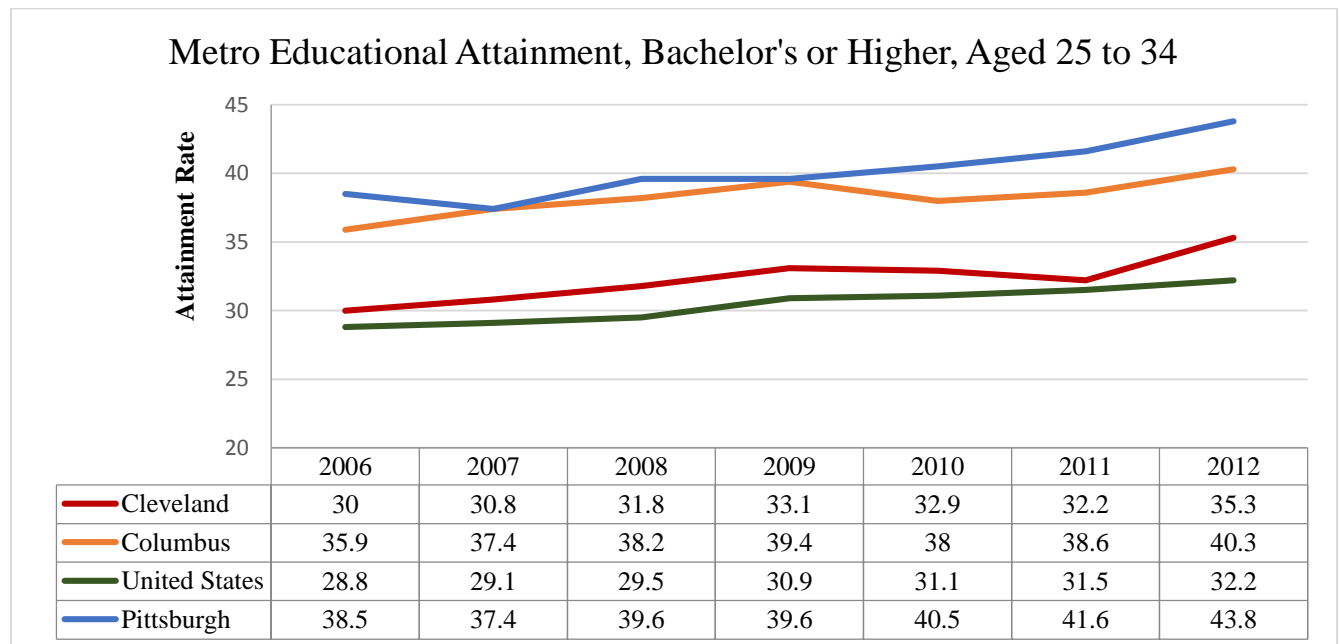
But there are issues with measuring educational attainment in this manner. The metros of Cleveland and Pittsburgh have larger aging workforces than Columbus due to their settlement histories. In 2012, the Cleveland metro had nearly 328,000 residents 65 and older, compared to about 211,000 for Columbus. Only 19% of Greater Cleveland's 65 and over age group have a college degree. Cleveland's older population is thus weighing down its educational attainment rate.

This presents issues when the task is accurately gauging a region's talent profile. Notes regional economist Chris Briem: "I argue all the time that such a metric says little about how well we are doing in recent decades at either educating the population, or on how we are doing at both attracting and retaining folks with higher education."¹⁵

A better way to analyze a talent base is through age cohort. Measuring the educational levels of a region's 25- to 44-year-olds is a better *leading indicator* when it comes to understanding where a region's knowledge economy is headed. After all, today's young workers will be the backbone of tomorrow's economy.

Figure 2 shows the **educational attainment rates for the 25- to 34-year-old age cohort.** In 2012, Pittsburgh's metro (44%) performs better than the Columbus metro (40%), while the gap between Greater Cleveland (35%) and Columbus closes. What's more, Greater Cleveland's educational attainment rate ranks higher than the national rate of 33%, and its 5.3% point increase over the 6-year period is the largest for all geographies measured. This is primarily due to a significant inflection point for Cleveland between 2011 and 2012.

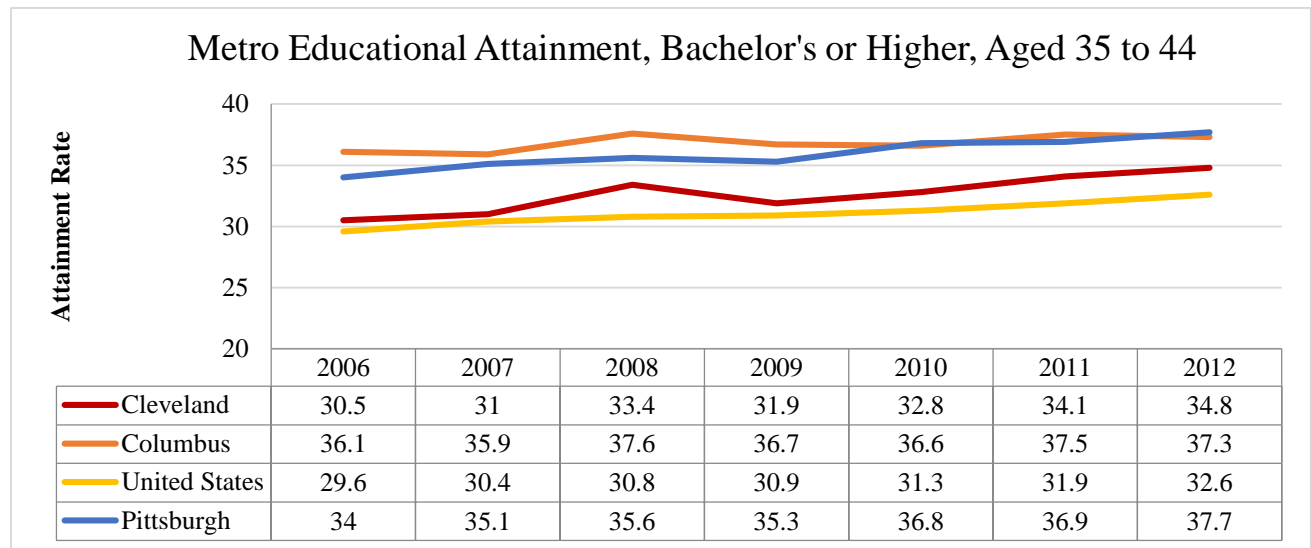
Figure 2: Source, American Community Survey 1-Year Estimates



¹⁵ See: <http://nullspace2.blogspot.com/2009/06/education-burgh.html>

The gap between Cleveland and peer metros closes even further when examining *the educational attainment rates of 35- to 44-year-olds*. By 2012, 35% of Cleveland’s middle-age adults have a bachelor’s degree or higher, as compared to approximately 37% for both Columbus and Pittsburgh (Figure 3). Another inflection point can be noted in Cleveland’s trend line, this time around 2009. What is driving both of these inflections is crucial and will be examined in the next section.

Figure 3: Source, American Community Survey 1-Year Estimates



A final method of examining a region’s talent pool is to look at the *educational attainment of 25- to 34-year-olds within the workforce*, as opposed to population. The rationale for doing so is simple. College cities, like Columbus, have a large number residents enrolled in degreed programs that are not necessarily employed, thus exaggerating the region’s talent pool, at least in terms of economic productivity.

To control for that, University of Pittsburgh economist Christopher Briem analyzed educational attainment rates for the nation’s top 40 largest workforces aged 25- to 34-year-olds¹⁶. He found that Greater Cleveland ranked 17th in the nation with 40% of its workforce having a bachelor’s degree or more. The Columbus metro, with a 35% rate, was 27th. Greater Pittsburgh’s 48% rate ranked 5th. When it came to graduate- or professional-degreed labor, Greater Cleveland, with approximately a 15% rate, ranked 7th, ahead of Austin, Chicago, and Seattle. The Pittsburgh metro’s 21% rate ranked 1st, while the Columbus metro’s 7% rate was 35th.

What do such results tell us? Most simply, that it’s necessary to disaggregate educational attainment by age and labor force participation, as it provides a finer level of understanding into a region’s supply of knowledge workers. In other words, for all the hype of Cleveland’s “brain drain”, the reality tells a different story.

¹⁶ See: http://www.ucsur.pitt.edu/files/peq/peq_2010-03.pdf

Migration is Economic Development

If a supply of skilled labor (i.e., a region’s educational attainment) and a demand for skilled labor (i.e., a region’s industry specialization) determine its economic strength, then what influences the changes in supply and demand?

Migration, or the flow of people between places, is a key intervening factor. Migration does this two ways: (1) it can help grow Cleveland’s supply of knowledge workers via having more educated people move to the region, and (2) it can deepen Cleveland’s idea bank and global connectivity via the richness of experience that migrants bring to a new place. Below examines to what extent the region’s economic competitiveness is being influenced by the migration of educated residents into Greater Cleveland.

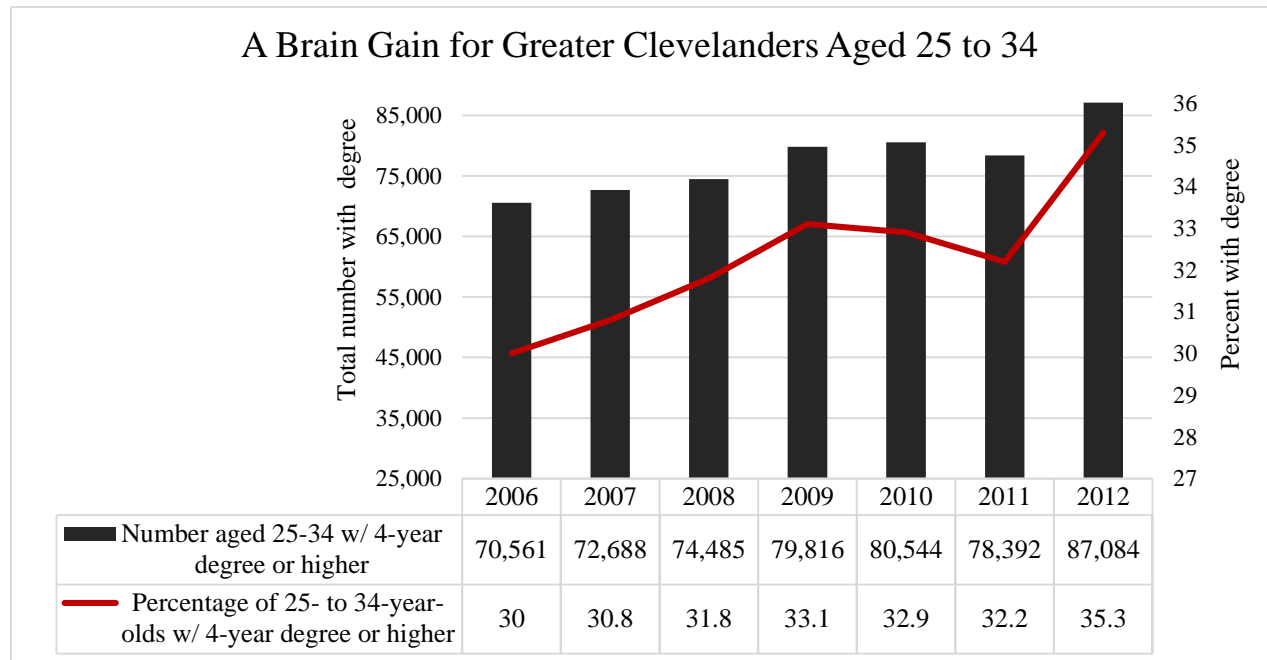
What’s Driving Cleveland’s Brain Gain?

In 2006, the Cleveland metro had approximately 366,000 people with a bachelor’s degree or higher. The number of educated residents increased to approximately 406,000 by 2012¹⁷. Over half of those gains occurred in Cuyahoga County. Were these gains the result of in-migration, particularly of the key 25- to 44-year-old demographics?

First, some housekeeping. An area’s year-to-year rise in educational attainment can occur by an exodus of undereducated residents and a retention of educated residents, and/or an influx of educated migrants.

Figure 4 shows the number of college graduates for the 25- to 34-year-old age group. The totals are plotted against the educational attainment rate for the age cohort (red line). Between 2006 and 2012, the number of young Greater Clevelanders with a bachelor’s or higher grew by nearly 17,000, or 23%. A gain of approximately 9,000 occurred from 2011 to 2012 alone—an 11% increase. The results suggest that an in-migration of new residents is driving the young adult brain gain.

Figure 4: Source, American Community Survey 1-Year Estimates, MSA



¹⁷ Source: American Community Survey 1-Year Estimates

Where are the young adults coming from? Table 1 shows the breakdown of Greater Cleveland's educated residents by **place of birth**. The number of college-educated Greater Clevelanders born in another state increased by approximately 7,500 from 2011 to 2012, a gain of 8%. One can speculate this increase of residents born out of state is aiding the young adult brain gain. This notion is further supported by the fact that from 2010 to 2012, 25% of all out-of-state migrations into Greater Cleveland were made by 25- to 34-year-olds, leading all age groups¹⁸.

Table 1: Number of Cleveland Residents 25 and Over with a Bachelor's Degree or Higher by Place of Birth.

	2006	2007	2008	2009	2010	2011	2012	% Change (‘06 to ‘12)	% Change (‘11 to ‘12)
Born in Ohio	231,991	242,981	240,238	245,614	254,034	256,161	259,829	12%	1%
Born out of state	94,766	97,689	103,073	100,683	96,089	97,401	105,000	11%	8%

Source: American Community Survey 1-Year Estimates

Taken together, are the nation's "young and the restless" catching wind of "Rust Belt Chic"? A 2012 *Salon* article entitled "Rust Belt Chic: Declining Midwest Cities Make a Comeback" would suggest so¹⁹. Still, it is too early to tell what this microtrend means. But Cleveland may be emerging as a player in the global fight for young talent. Such tentative findings cannot be overstated.

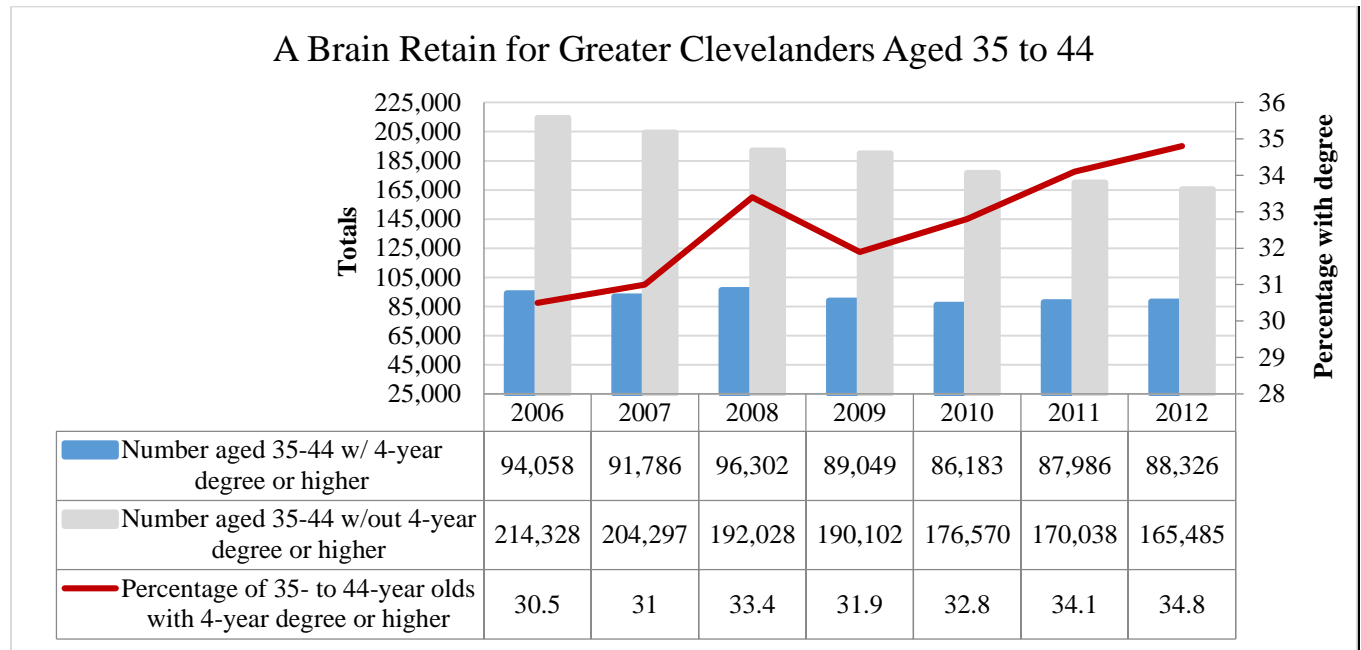
As stated, the Cleveland metro also saw a gain in the educational attainment rate for its 35- to 44-year-old residents. However, Figure 5 (next page) shows the total number of educated residents aged 35 to 44 declined slightly from 2006 to 2012. Simultaneously, there was a 23% decline in the number of residents without a 4-year degree. The better retention of educated 35- to 44-year-olds coupled with an outmigration of undereducated residents explains the rise in the educational attainment rate for this age cohort.

Before going further, a note on this dynamic and what it could say about the regional economy. From 2000 to 2012, the metro added over 63,000 educated residents and lost nearly 74,000 residents without a college degree. The vast majority of the out-migration was made by people aged 35 to 44 without a 4-year degree. This could be the result of Cleveland's economic restructuring into a knowledge economy. Specifically, emerging industries are able to attract and retain skilled residents whereas slower-growth industries are "pushing" less skilled workers elsewhere. Also, while job and population loss is troubling for any city, it is in some respects a necessary demographic result as the workforce transitions from lower- to higher-skilled. That said, if Cleveland's knowledge economy can reach a critical mass, job growth for both skilled and unskilled work will increase, making the region amenable to population gain. As such, Cleveland's migration is currently about quality, not quantity.

¹⁸ Source: American Community Survey 3-Year Estimates

¹⁹ See: http://www.salon.com/2012/05/12/rust_belt_chic_declining_midwest_cities_make_a_comeback/

Figure 5: Source American Community Survey 1-Year Estimates



Regarding that quality, note the foreign born totals in Table 2. From 2006 to 2012, Cleveland’s educated immigrants increased by a modest 7%. By contrast, Columbus gained nearly 20% across the same time period. This possible rigidifying of Cleveland’s immigrant talent pipeline is an issue that needs to be addressed. That’s because Cleveland has been, and remains, a magnet attracting the *skilled* foreign born. According to a recent Brookings study, the metro was one of 44 “high-skill destinations”—defined as a place in which college-educated immigrants outnumber immigrants without high school diplomas by at least 25 percent²⁰.

The immigrant migration pattern is important for a number of reasons. Specifically, the immigrant gains add to the intellectual capital of Cleveland, or its supply of skilled labor. Also, and perhaps more importantly, an in-migration of global talent into Cleveland can create a reciprocity in both the person and the place. In the study “How Does Immigration Boost Innovation”²¹, the authors found that immigrants have “positive spill-overs, resulting in an increase in patents per capita of about 15% in response to a one percentage point increase in immigrant college graduates.” Such spill-overs relate to how a city “thinks”, or to the diversification of its idea bank. As we will see, while Cleveland, much like most of the Rust Belt, has a history of being built by people from somewhere else, the region struggles with a currency of thinking that we need no one but ourselves.

Table 2: Number of Foreign Born Cleveland Residents 25 and Over with a Bachelor’s Degree or Higher

	2006	2007	2008	2009	2010	2011	2012	% Change (‘06 to ‘12)	% Change (‘11 to ‘12)
Foreign born	34,722	36,658	37,692	34,820	40,700	39,695	37,024	7%	-7%

Source: American Community Survey 1-Year Estimates

²⁰ See: http://www.brookings.edu/~media/research/files/papers/2011/6/immigrants%20singer/06_immigrants_singer.pdf

²¹ See: http://www.nber.org/papers/w14312.pdf?new_window=1

The Port City

There is knowledge, like facts or a skillset, and there is the context of knowledge. By “context” we are referring to the richness of ideas and experiences that a city has or lacks. Cities with “churn”, or that relentless in- and out-migration of new and existing residents, are fertile ground for creation. Said Dr. Thomas Graham, the Chief Innovation Officer at the Cleveland Clinic:

“Innovation happens at the intersection of knowledge domains. It is no accident that the great advances in art, literature, science came from the port cities, because that is where ideas had intercourse”.

Dr. Graham made these remarks at an event called “Cleveland Connects: Building on Biotech”²². The subject was how to scale-up Cleveland’s knowledge economy, which depends not only on talent accumulation, but also on the creation of a culture in which new ideas are nurtured and multiplied, not discouraged.

“What echoes with me is that regions, especially regions like Ohio, like the Midwest, like Cleveland in specific, we tend to be very provincial,” noted Baiju Shah at the event, the CEO of BioMotive. “[W]e try to cultivate the technologies we have, the knowledge we have, the talent we have that is already present here. We don’t think of ourselves as bringing people in from the outside. I think if you look at great clusters, these are places that people move to with their ideas.”

Migration’s effect on economic development is borne out in the literature. A recent paper by the National Bureau of Economic Activity called “Birthplace Diversity and Economic Prosperity” found that birthplace diversity is positively related to economic development, even after controlling for education, trade openness, geography, and market size²³. The authors speculate the effect arises through “complementarities in skills, cognitive abilities or problem solving capabilities that emerge from the combination of workers with diverse origins”.

Birthplace diversity can be measured. In the state rankings of birthplace diversity, calculated as the percentage of the population residing in the state where they were born, Ohio ranks 3rd worst with 75% of its residents being born in Ohio. At the metro level, Cleveland’s birthplace diversity rate is 74%. This is a problem given migration’s effect on the context of innovation, which makes cultivating various talent flows into Cleveland all the more important. But to grow talent flows, you need to map what those flows are.

²² See: <http://www.ideastream.org/clevelandconnects/biotech>

²³ See: <http://federation.ens.fr/ydepot/semin/texte1213/HIL2013BIR.pdf>

Designing a Talent Attraction Strategy

While demonstrating Greater Cleveland’s brain gain can help address the misconception of the region as a “backwater”, the demographic data are not enough to inform a talent attraction policy. Another step is needed that maps the metro’s brain gain “supply chain”, which can be facilitated using migration metrics that show where people are coming from when they arrive, and where they live when they get to Greater Cleveland. By knowing the “who and where” of migration, researchers can infer the “why”, with the end goal of crafting “the how” to increase a flow of migrants into Cleveland.

Cleveland: Where Chicago Meets New York?

The migration analysis begins with a **metro-to-metro gross migration**, calculated as the sum of in- and out-migration to and from Greater Cleveland. This is a bi-directional metric—e.g., the flow to and from New York—which is helpful when analyzing “the boomerang”, or return migration, which will be discussed below. Cleveland’s gross migration profile is visualized in Map 2 and Table 3. Note the ties to both Chicago and New York. This is important in that an act of migration is like a laying of “human fiber optics” between two points in space. The fact that Cleveland is closely tied with two of the nation’s great “port cities” is immeasurable when it comes to crafting strategizes that can advance regional connectivity.

Map 1: Gross Migration with Cleveland Metro. Source: IRS 1996-2010 via Telestrian

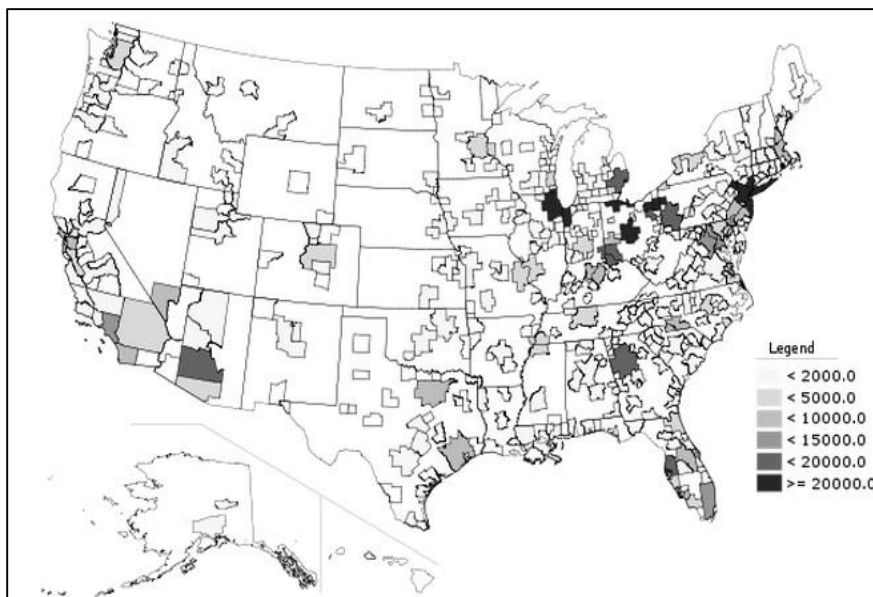


Table 3: Gross Migration Totals for Cleveland MSA (1996-2010)

Rank	Metro	Total
1	Akron	183977
2	Columbus	52857
3	Chicago	28309
4	Youngstown	25006
5	New York	23050

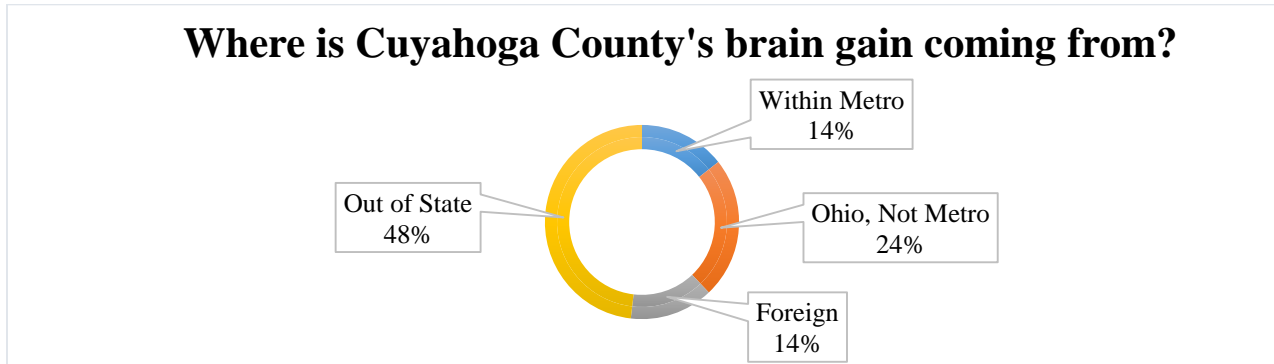
Source: Internal Revenue Service

Next, the lens focuses more narrowly to investigate **county-to-county net migration for Cuyahoga County**—i.e., where Cuyahoga County is gaining more people from a place than that place is sending to Cuyahoga County. The data is from the county-to-county migration statistics for 2007 to 2011 collected by the Census. The top three “feeders” into Cleveland are Detroit’s Wayne County; Brooklyn, New York’s Kings County; and Pittsburgh’s Allegheny County. Chicago’s Cook County also ranks in the top ten. Net migration is important in that it offers a glimpse into Cleveland’s competitive advantages. Put simply, why is the migratory path between Cleveland and, say, New York, “tilting” ever so slightly Cleveland’s way? This will be discussed in the final section.

Lastly, an analysis of **migration by educational attainment** was done for 2007 to 2011 using Census data. Figure 6 shows that 48% of all new Cuyahoga residents with at least a bachelor’s degree came from other states. When it comes to **net migration**, Atlanta, Detroit, and Pittsburgh were the biggest feeders for those

arriving with a bachelor's degree, while Chicago, Manhattan, Brooklyn, and Pittsburgh sent the most in-migrants with a graduate or professional degree. Lastly, out of the nearly 1,500 *educated foreign born* migrants who arrived into Cuyahoga County, 64% were Asian, 14% were European, and 8% were African. Sixty percent (60%) of all educated migrants had graduate or professional degrees. Nearly half (48%) of the immigrants that came into Cuyahoga County were college educated.

Figure 6: Source, American Community Survey County-to-County Migration, 2007 to 2011



Where do migrants live when they arrive in Greater Cleveland? Understanding where the brain gain is “pooling” can guide further research into why it is occurring. To answer, a simplified cohort analysis²⁴ was done for 25- to 34-year-old Cuyahoga County residents at the census tract level. The analysis identified neighborhoods that gained the greatest number of young adults from 2000 to 2010. Neighborhoods with large gains are hypothetical “hot spots” for Cleveland’s brain gain.

Map 3 and Table 4 (next page) shows the top 15 census tracts with the largest gains of 25- to 34-year-olds. Note much of the gains are occurring in Cleveland’s urban core, including parts of Downtown, Ohio City, Tremont, and Edgewater, as well as inner-ring suburbs of Lakewood and Cleveland Hts. Parts of outer-ring suburbs are also represented, including Westlake’s Crocker Park area, Beachwood’s Legacy Village area, Mayfield Hts., and Olmsted Township. Also, these census tracts have very high rates of educational attainment and have experienced large gains in the share of residents with a bachelors or higher (see Table 4).

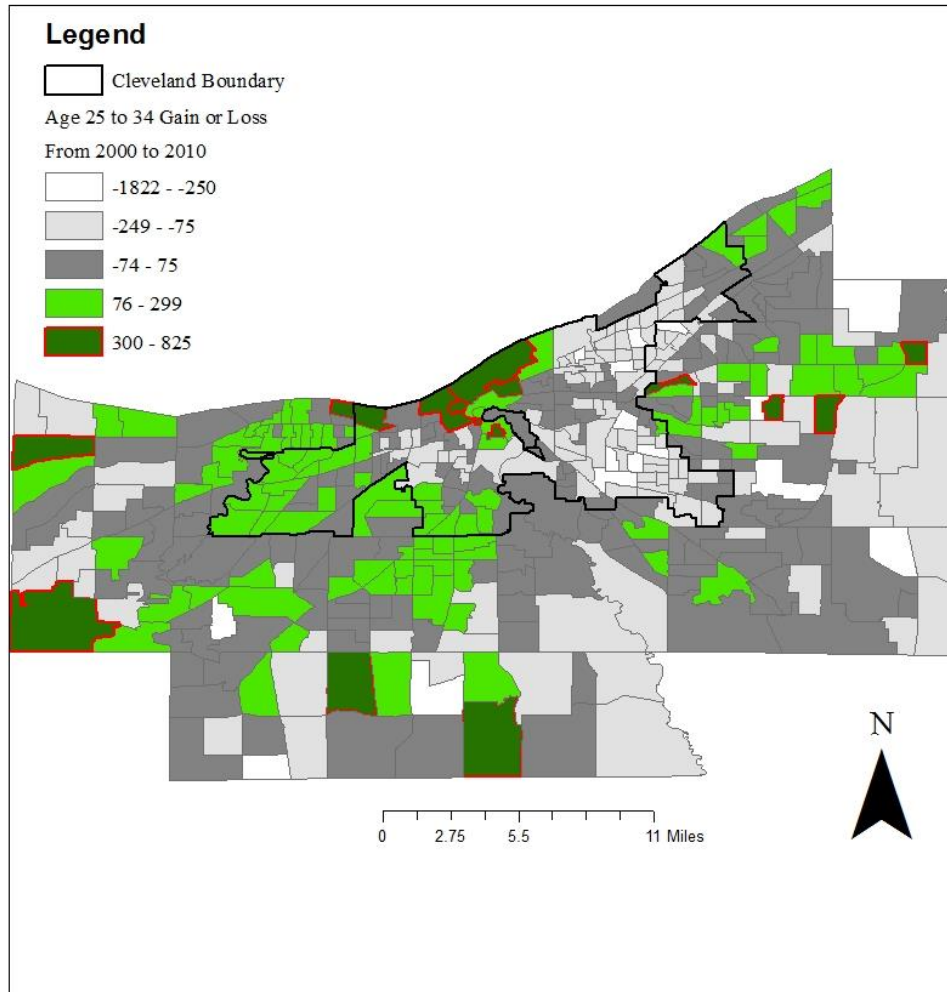
Now, who are these young adults that are collecting in neighborhoods such as Ohio City and Lakewood? Are they the out-of-state migrants who are moving into Greater Cleveland from the likes of New York City, Chicago, and Pittsburgh on the national level, and from Asia on the international level? These questions will drive investigative efforts going forward. That said, preliminary research shows that those neighborhoods that are gaining the largest share of young adults are also home to the most newcomers who have moved in from out of state²⁵.

Taken together, these neighborhoods are Cleveland’s “Global Neighborhoods”. They have both brain gain and demographic dynamism: the seed and water of economic development. Cultivating and growing these “Global Neighborhoods” will hasten the metro’s transition into the new economy.

²⁴ Note: Using 2000 and 2010 Census data, the analysis entails comparing the number of people in an age cohort in 2000 with the number in an age cohort that is 10 years older. For example, if there are 100 people in a given area in the 25 to 34 age range in 2000, we would expect 100 people in the 35 to 44 age range in 2010, as they have aged 10 years. If, however, there are 500 people in the 35 to 44 age range in 2010, a positive difference of 400 would lend empirical support that there was an inflow of new residents that cannot be explained by births.

²⁵ Source: Geographic Mobility from Current Residence in Past Year, ACS 5-Year Estimates 2008 to 2012

Map 3: Mapping the Young Adult Brain Gain



Source: Census 2000, 2010
Created by Center for Population Dynamics at Levin College of Urban Affairs

Table 4: Mapping the Young Adult Brain Gain, Aged 25 to 34

Tract	Gain in Young Adults	Global Neighborhood	Educational Attainment Rate, 2000	Educational Attainment Rate, 2010
1071.01	825	Downtown	30.0%	42.8%
1606.01	824	Lakewood	52.0%	54.6%
1411	765	Cleveland Hts.	71.6%	75.3%
1905.04	658	Olmsted Township	25.7%	39.1%
1721.03	623	Mayfield Hts.	30.2%	47.6%
1891.1	610	Westlake	51.5%	46.5%
1751.03	581	North Royalton	24.1%	27.3%
1078.02	558	Downtown	28.5%	50.1%
1361.02	542	Broadview Hts.	37.2%	48.8%
1011.02	518	Edgewater	43.2%	39.0%
1033	411	Ohio City	10.2%	26.4%
1311.04	383	Beachwood	47.0%	48.2%
1871.06	383	University Hts.	56.2%	63.7%
1043	341	Tremont	26.7%	39.9%
1036.02	301	Ohio City	24.4%	39.1%

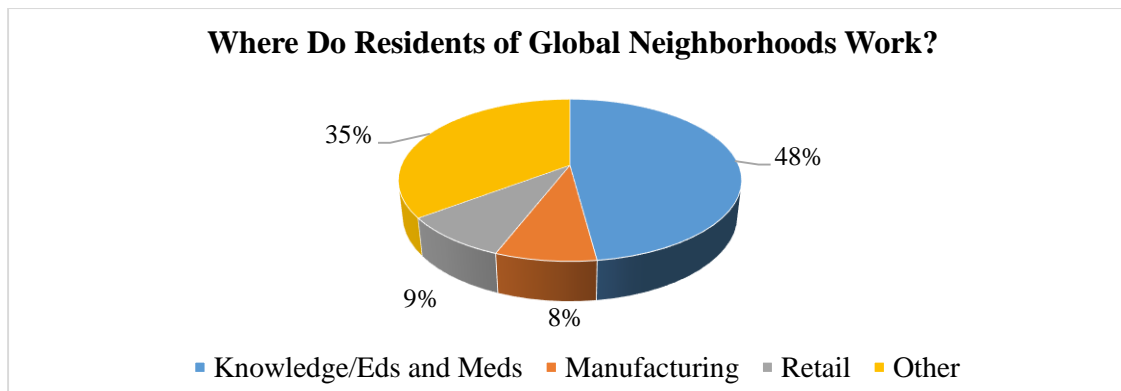
Source, Decennial Census 2000, 2010; ACS 5-Year Estimates 2006-2010

The Passion of Young Cleveland

To recap, economic development requires income growth. Income growth is driven by a region's ability to trade knowledge work in the global market. Migration is a key intervening factor. For the metro to progress it needs to know what emergent flows are working in the region's favor, which means a disaggregation of broad-brush metrics. This has been done. A final step is to hint at "why". Why, for instance, are certain neighborhoods in Greater Cleveland filling in after decades of decline?

While definitive answers are beyond the scope of this paper, inferences into the psychogeography behind the in-migration can be drawn. First, jobs. Figure 7 shows that Cleveland's Global Neighborhoods are tied to the region's knowledge economy in a big way. Nearly 50% of the residents of Cleveland's Global Neighborhoods work in knowledge²⁶ and "eds and meds" industries. The "eds and meds" jobs increased 49% increase from 2002 to 2011. Also, the number of Global Neighborhood residents who made more than \$40,000 a year increased by 50% from 2002 to 2011, while the number of residents who made less than \$40,000 decreased by 13%. This is the profile you get when a neighborhood is tied to the global market: population, job, and wage growth.

Figure 7: Source, Longitudinal Employer Household Dynamics, 2011



Second, opportunity and attachment to place. Here, the migration angle is admittedly less clear cut, but the implications are just as important. Macroeconomic shifts are at play that can be favorable to the Cleveland metro, particularly as it relates to the in-migration from Chicago and New York. The "rent is too damn high" in "Big City", the result of the decades-long migration of America's knowledge workforce clustering in restricted space. For those not interested in "bright lights, tight quarters", the option is to leave, and they are. Since 2010, New York City has had the fastest rate of brain drain of Millennials in the country²⁷, and the metro as a whole lost on net 2 million people during the 2000s²⁸.

What does this mean for Cleveland? Said a 34-year-old Brooklyn, New York resident about his move back to Cleveland after 10 years away:

"I am moving back to Cleveland because my family is there, and I have secured a gig that allows me to earn a living in my established career path (editing/publishing) while spending more time pursuing a similar but separate career track (writing, getting a MFA so I can teach, freelancing). I felt that I could not afford to do this in New York... There are cultural factors in my relocation -- I feel more comfortable

²⁶ Note: Knowledge jobs include information, finance and insurance, real estate, and professional, scientific, and technical services.

²⁷ See: <http://blogs.wsj.com/economics/2013/11/14/millennials-flock-to-washington-after-abandoning-city-in-recession/>

²⁸ See: http://www.city-journal.org/2013/special-issue_migration.html

in Cleveland, I am hoping to do some writing about some things specific to Cleveland, and I feel a sense of belonging and stake-holding in NEO that I never have about NYC.”

Such is the migratory tale of the Cleveland repatriate. It is hypothesized that a significant amount of the out-of-state migration into Cleveland is being driven by return migrants. The majority of the metro’s brain gain from 2006 to 2012 was the result of those born in Ohio. This, coupled with the fact that much of Cuyahoga’s County’s brain gain is from across state lines, reads like a recipe for return migration.

What’s the “pull”? "There is an effect [Cleveland] has on your work and your person," TEDXCLE co-founder Hallie Kogelschatz recently told the *Plain Dealer* on why she returned from Boston²⁹. "I think that leads to people who want to do good, authentic, honest work."

What both Kogelschatz and our writer repatriate reference are opportunities that are not necessarily quantifiable, but neither are they immaterial. Such opportunities, called “geographic arbitrage”, or the practice of professionals moving to less expensive areas, are a driving force behind return migration. But what’s key is that the move back home is not being perceived through 1960’s eyes. The river hasn’t burned for decades.

“Cleveland is one of those Rust Belt cities that's too often held up as a symbol of the fall of American industry,” notes a recent *Atlantic Cities* piece “The Passion of Young Cleveland”³⁰, “but a critical mass of diehard young Clevelanders are either staying or coming back to turn the place around.”

From an economic development perspective, the trend is immensely important. Repatriates can “reverse the brain drain into significant brain gain”³¹. Also, much like native newcomers and immigrants, return migrants bring back new ideas and globalized networks. The ideas bust the parochial path dependence. The networks grease the rail for capital investment. After long, the word gets out that you can go home again.

Is the trend inevitable? Hardly, in fact Greater Cleveland’s comeback is still nascent. Its brain gain is still emergent. Conversely, its struggles are obvious and entrenched.

Because of that, many experts think the Clevelands of the world are a lost cause. Harvard economist Ed Glaeser wrote an essay entitled “Can Buffalo Ever Come Back?” The subtitle wasn’t hopeful, reading “Probably not—and government should stop bribing people to stay there”³². These scholars argue that in fifty years the winners will be the winners and the losers the losers. The authors of this paper take a different view. Could Silicon Valley be the next Detroit? Economist Enrico Moretti explains:

“The prediction of this view is the convergence of American communities. Low-cost areas will attract more and more of the new, high-paying jobs. Cities that have been lagging behind—the Clevelands, the Topekas, and the Mobiles—will grow much faster. Bugged down by their high costs, San Francisco, New York, Seattle, and similar cities will decline.”

Moretti continues: “But the data don’t support this view. In fact, the opposite has been happening.”

But data do support this view. You just need to know where to look, and then develop sound strategies accordingly.

²⁹ See: http://www.cleveland.com/business/index.ssf/2014/04/for_tedx_speakers_being_a_clev.html

³⁰ See: <http://www.theatlanticcities.com/arts-and-lifestyle/2013/11/passion-young-cleveland/7486/>

³¹ See: <http://www.nber.org/papers/w14039>

³² See http://www.city-journal.org/html/17_4_buffalo_ny.html

Next Steps

While Greater Cleveland has its struggles, there exist avenues of momentum that can be leveraged so as to help progress the Rust Belt region forward. Understanding this momentum requires focusing on those economic, social, and cultural trends that are real and offer promise. One of these trends is the brain gain that is nascently backfilling Greater Cleveland's core. Opening this pipeline of human capital is the order of the day. After all, encouraging emergent demographic trends flowing into the region is far more efficient than attempting to reverse long-standing demographic trends of outmigration. Part 3 of this series will offer a strategic framework to help get Greater Cleveland where it needs to go: into the prospect of its future, not the failures of its past.