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Ranking America's Top Young Adult Labor Forces: A Rust Belt Rising?

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**Ranking America's Top Young Adult Labor Forces:
A Rust Belt Rising?
A Report Brief**

By Richey Piiparinen, Charlie Post, and Jim Russell

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.

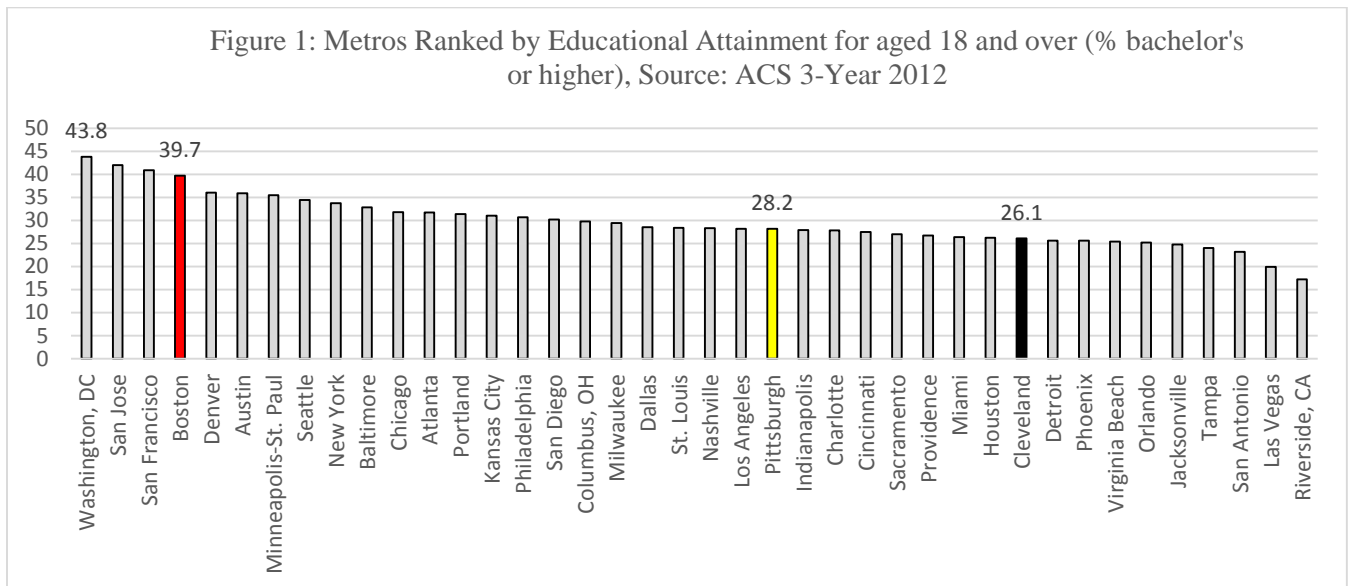
August 2014

Executive Summary

Greater Cleveland ranks 8th nationally in the percentage of 25- to 34-year-olds in the labor force with a graduate or professional degree, ahead of such “brain hubs” as Chicago, Seattle, and Austin. The analysis speculates as to whether or not this is a leading indicator to broader economic growth. Comparisons are made with Boston and Pittsburgh—two metros further along in the economic restructuring process.

Ranking America’s Young Adult Labor Forces

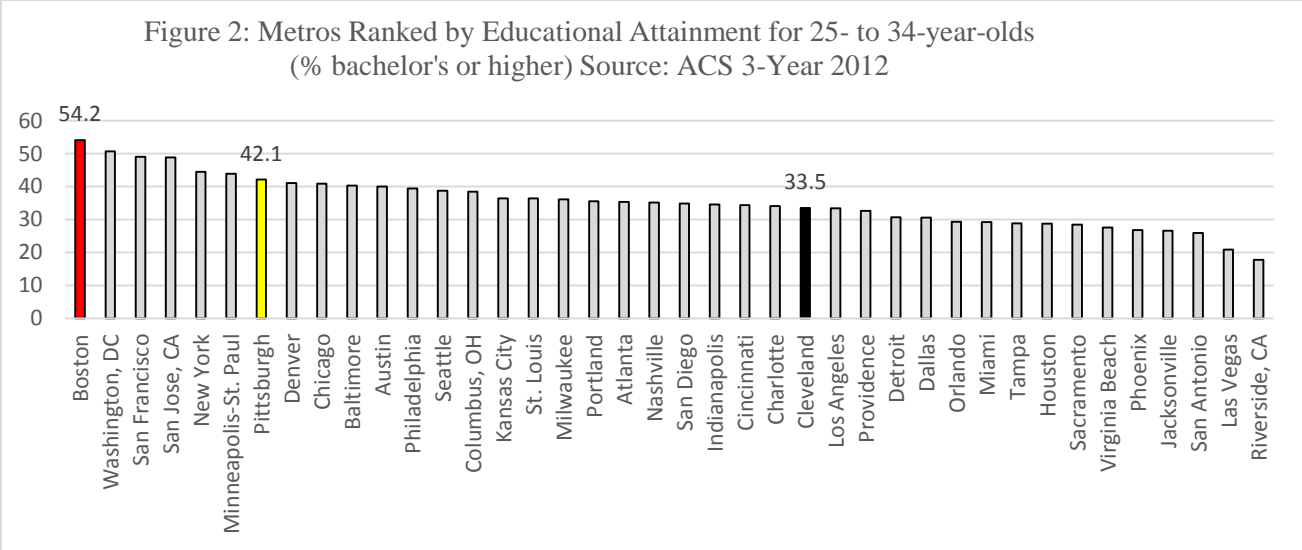
A region’s economic prospects are tied to its levels of human capital. The most common proxy for human capital is the educational attainment rate, or the percent of a population that has completed a bachelor’s degree or higher. Figure 1 shows the nation’s largest 40 metros ranked by the percent of residents 18 and over who have completed at least a bachelor’s degree. The Rust Belt metros of Pittsburgh and Cleveland rank 23rd and 31st, respectively.



But there are issues with measuring educational attainment this way. Metros such as Cleveland and Pittsburgh have larger aging populations due to their settlement histories, and this significantly affects regional educational attainment rates. Why does this matter? Notes Pittsburgh economist Chris Briem¹: “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.”

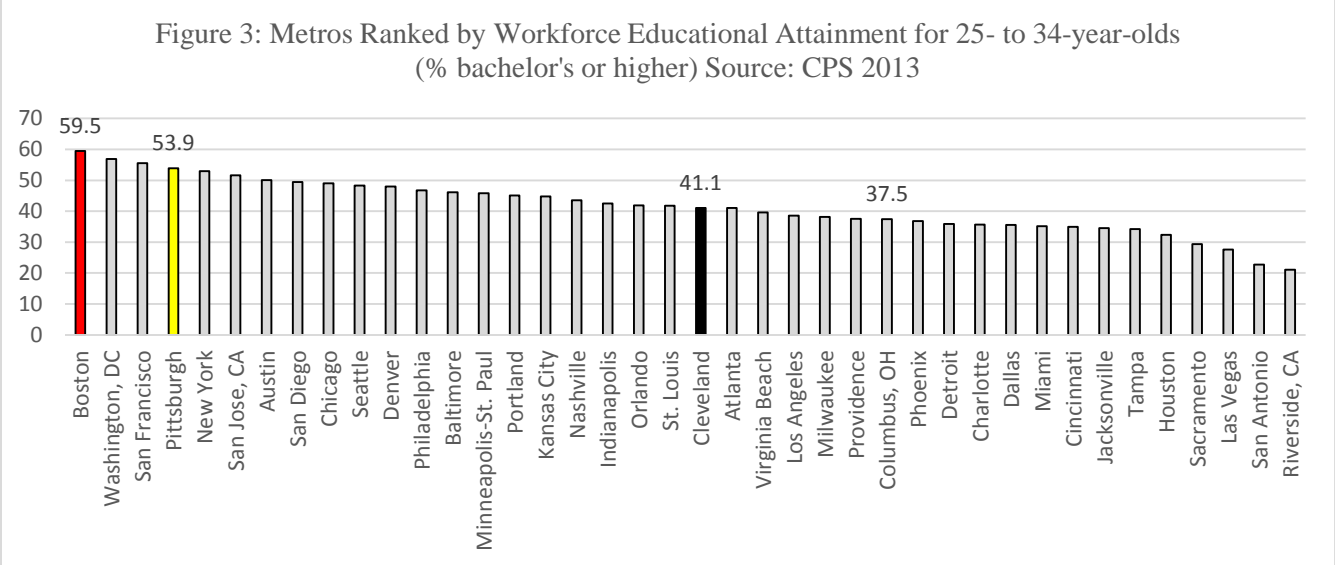
A better way to analyze human capital is through age cohort. Measuring the educational attainment of a region’s 25- to 34-year-olds is a leading indicator when it comes to understanding where a region’s economy is headed. Figure 2 shows the educational attainment rates for the 25- to 34-year-old age cohort. Greater Pittsburgh ranks 7th, moving up 16 spots. Greater Cleveland moves up 6 spots to rank 25th.

¹ See: <http://nullspace2.blogspot.com/2009/06/education-burgh.html>



An additional method of examining a region’s skill level is to look at the educational attainment *within the labor force*, as opposed to population. The rationale for doing so is simple. Regions with proportionally large student populations, like Columbus, Ohio, can have exaggerated talent pools, at least in terms of economic productivity. That is, a college student may live in a region to consume knowledge but not necessarily be employed to produce output.

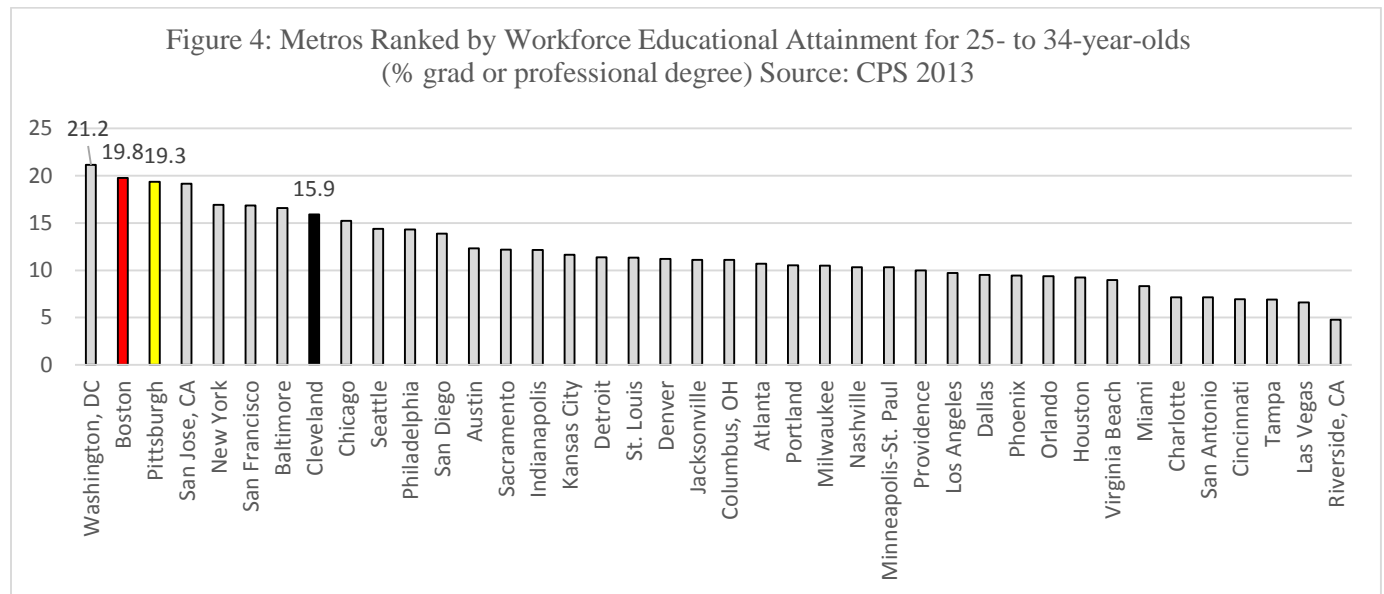
To calculate educational attainment in the labor force, data were analyzed for the 25- to 34-year-old cohort from 2013 Current Population Survey². Figure 3 details the results of this analysis. Pittsburgh ranks 4th, whereas Greater Cleveland moves up to rank 21st. Conversely, Columbus, Ohio drops 13 spots to rank 27th, perhaps suggesting that the region’s large college enrollment isn’t effectively translating into the regional labor market.



² The Current Population Survey (CPS) is a monthly survey of households conducted by the Bureau of Census for the Bureau of Labor Statistics. The monthly workforce educational attainment rate estimates were aggregated for a 2013 annual estimate.

A final analysis examines the percentage of a region’s young adult labor force that is highly skilled, or those with a graduate or professional degree. Slicing the labor force data this way is important in that a region’s highest-skilled workers are drivers of economic growth. Specifically, a metro’s top talent—think engineers, scientists, and doctors—are key agents of knowledge production and transference³, which—when translated into the marketplace—mean new firms and the evolution of existing firms. Those metros that have a high concentration of highly-skilled young adult workers have a head start in the race toward the “next” new economy.

Figure 4 ranks the metros by the percentage of 25- to 34-year-olds in the labor force with a graduate or professional degree. Pittsburgh ranks 3rd nationally, whereas Greater Cleveland moves up 13 spots to rank 8th, ahead of Chicago, Seattle, and Austin. The implications of these findings are discussed below.



A Rust Belt Rising?

Economic restructuring from a labor- to a knowledge-based economy is no easy endeavor. Perhaps no other metro has made this transformation as successfully as Boston. What has driven the region’s evolution from a “dying factory town to a thriving information city”⁴ has been its gains in human capital. As shown in Figure 5, Boston ranks as an elite metro when it comes to educational attainment rates in both its population and labor force.

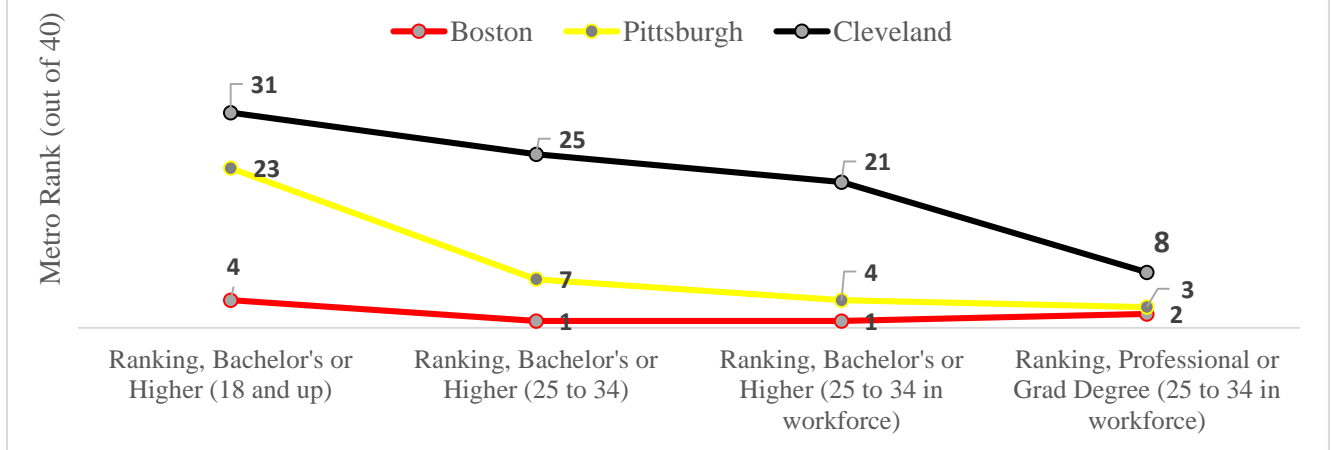
What metro is the “next Boston”? Pittsburgh is a likely candidate. The “Steel City” region is increasingly marrying its legacies of manufacturing and knowledge production, with the evolution of new industries and products to show for it⁵. Enabling Pittsburgh’s ascent is a highly-skilled young adult workforce that’s rivaling Boston in terms of concentration of human capital (See Figure 5 below).

³ Waters, R. and Smith, H. 2013. High-technology local economies: Geographical mobility of the highly-skilled. In *Networking Regionalised Innovative Labour Markets*; Eds. Hilpert, U and Smith, H. Routledge: New York.

⁴ See: <http://www.csus.edu/indiv/c/chalmersk/ECON180FA08/GlaeserBoston.pdf>

⁵ See: <http://www.politico.com/magazine/story/2014/02/pittsburgh-robots-technology-103062.html#.U-UXIU10zIU>

Figure 5: Educational Attainment Rankings Across Population and Labor Force for Boston, Pittsburgh, and Cleveland (Source: ACS 2012 3-Year and CPS 2013)



Where does that leave Cleveland? While the region is far from being the “next Boston”, one can make the case it is trending to be the “next Pittsburgh”. Specifically, a line of emerging thought—and one that will be developed by the Center for Population Dynamics in the coming months in two working papers—is that Cleveland’s 8th-placed ranking in its concentration of young workers with an advanced degree is a harbinger of broader economic growth. While this supposition is exactly that, there are several mechanisms by which this can occur.

First, it is important to note that there is an industry demand for workers with advanced degrees in Greater Cleveland, else its 8th-place ranking wouldn’t occur. Termed a “magnet city”⁶, Cleveland’s knowledge economy is forming world-class clusters of expertise that are attracting top talent in key industry sectors, particularly life sciences and advanced manufacturing. In other words, if you want to act, you go to Hollywood. If you want to practice cardiac care or make medical devices you come to Cleveland. The next step for the region is to scale up its emerging economies so that the amassing of knowledge and investment becomes multiplied into the creation of a “thicker, stickier” regional economy.

Part of this scaling up process relates to the effect that Cleveland’s concentration of highly-skilled workers can have on the local economic ecosystem. To wit, those with advanced degrees are most likely to migrate across state or international lines⁷. For instance, 29% of newly-arriving immigrants into Cleveland’s Cuyahoga County had a graduate or professional degree⁸. This means Cleveland’s burgeoning new economy demand is commonly fueled from outside the market. Why does this matter? For a historically insular region like Cleveland, this out-of-the-market knowledge migration brings a deepening of a region’s idea bank, as well as increasing global connectivity. The ability of a region to cross-pollinate ideas and get connected with global markets is crucial in the creation of new firms and emerging industries⁹.

⁶ See: <http://www.kpmg.com/uk/en/topics/magnet-cities/pages/default.aspx>

⁷ See: <http://www.economist.com/news/britain/21611102-some-5m-britons-live-abroad-country-could-do-far-more-exploit-its-high-flying-expats-and>

⁸ See: http://engagedscholarship.csuohio.edu/urban_facpub/1164/

⁹ Hilpert, U. 2008. Knowledge in the region: Development based on tradition, culture and change. *European Planning Studies*, 14, 5.

Now, what does, for example, a new biotech firm in Cleveland's Health Tech Corridor mean for the local mechanic, bartender, lawyer, or accountant? A lot actually. Specifically, economist Enrico Moretti found that for every high-skilled job created, an additional 5 jobs are created in the professional or service sector¹⁰. What's more, the job creation goes beyond the local services and taps into semi-skilled professions in emerging industries. For example, a recent Brookings study found that the Cleveland metro ranked 20th out of the nation's largest 100 metros in the number of workers without bachelor's degrees employed in pre-baccalaureate health care occupations¹¹.

Summary

Perhaps Cleveland is the next Pittsburgh, and Pittsburgh the next Boston. Clarifying this entails analyzing how human capital development and economic restructuring takes place. Simply, is Cleveland's talent profile today similar to Pittsburgh's a decade ago, and to Boston's twenty years prior? Moreover, what policies have been proven effective in translating knowledge production to regional economic growth? The Center for Population Dynamics is in the process of answering these questions. The information intends to help Cleveland speed up how quickly tomorrow gets here.

¹⁰ See: <http://sloanreview.mit.edu/article/the-multiplier-effect-of-innovation-jobs/>

¹¹ See: <http://www.brookings.edu/research/interactives/2014/healthcare-workers#/M17460>