Cleveland State University
EngagedScholarship@CSU

Maxine Goodman Levin
College of Urban Affairs

Urban Publications | Maxine Goodman Levin College of Urban Affairs

9-2014

A Newer Geography of Jobs: Where Workers with Advanced Degrees Are Concentrating the Fastest

Richey Piiparinen
Cleveland State University, r.piiparinen@csuohio.edu

Jim Russell

Charles Post
Cleveland State University, C.POST@csuohio.edu

Follow this and additional works at: http://engagedscholarship.csuohio.edu/urban_facpub

Part of the Urban Studies and Planning Commons

Repository Citation
Piiparinen, Richey; Russell, Jim; and Post, Charles, "A Newer Geography of Jobs: Where Workers with Advanced Degrees Are Concentrating the Fastest" (2014). *Urban Publications.* Paper 1190.
http://engagedscholarship.csuohio.edu/urban_facpub/1190

This Report is brought to you for free and open access by the Maxine Goodman Levin College of Urban Affairs at EngagedScholarship@CSU. It has been accepted for inclusion in Urban Publications by an authorized administrator of EngagedScholarship@CSU. For more information, please contact library.es@csuohio.edu.

Cleveland State University

The Center for Population Dynamics

A Newer Geography of Jobs: Where Workers with Advanced Degrees Are Concentrating the Fastest

A Report Brief

By Richey Piiparinen, Jim Russell, and Charlie Post

September 2014

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.

Media Contact: Richey Piiparinen, Senior Research Associate, email: r.piiparinen@csuohio.edu

Summary Findings:

From 2005 to 2013, the Cleveland metro ranked 5th in the nation in the growth of percentage of workers with an advanced degree. Greater Cleveland ranks 10th in the nation with 17% of its labor force with a graduate or professional degree, moving up from 22nd place in 2005. Cleveland's 12-point rank change was third largest, behind Indianapolis and Providence. The brief suggest Greater Cleveland is part of a next generation of second-tier metros entering into the upper echelon of the knowledge economy.

The Rise of the Rest?

In 1963, nearly 75% of America's top 50 companies owned and extracted natural resources[1]. By 2013, only 20% of top firms were natural resource-based. Today, knowledge-focused industries such as IBM comprise over 50% of America's top 50 firms. Translation: talent is the new oil.

But not every region has reservoirs of human capital. Historically, knowledge economies have gathered in select top-tier metros, termed "Islands of Innovation"[2]. Think Boston and San Francisco. There are numerous reasons for this, including access to select research institutions, as well as the productivity effects that arise when a cluster economy is formed[3].

For scholars such as economist Enrico Moretti, this "Great Divergence"[4] between "the best" and "the rest" will continue. "More than traditional industries," writes Moretti in his book *The New Geography of Jobs*, "the knowledge economy has an inherent tendency toward geographical agglomeration."

But is this trend inevitable? Will the divergence remain? One line of thought is that the cost of living in top-tier metros will inevitably lead to "capital equalization"[5]—loosely defined as the "convergence" between regions in job and income growth. Capital equalization was a key factor in the decline of the Rust Belt. Here, manufacturing jobs became automated or moved down South or overseas to cut labor costs. One could argue that capital equalization will re-map the geographies of the knowledge economy in a similar manner.

"The prediction of this view is the convergence of American communities," writes Moretti. "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. Bogged down by their high costs, San Francisco, New York, Seattle, and similar cities will decline." That said, Moretti does not believe convergence is taking shape. "[T]he data don't support this view," Moretti continues. "In fact, the opposite has been happening."

But there is data that do support this view, and it begins to sketch a newer geography of jobs that is enabling an increasing concentration of highly-skilled workers in America's second-tier cities. AOL Co-Founder Steve Case has dubbed this convergence back into Middle America "the Rise of the Rest"[6].

Where are America's Highest-Skilled Jobs Clustering?

The most common measure of human capital is educational attainment, or the percent of a population with a college degree. Not all human capital is equal. Generally speaking, the higher the degree conferred, the more productive the worker, and this is reflected in pay. For example, the national median income by education level is as follows: $27,350 for a high school graduate, $50,050 for a person with a 4-year degree, and $65,565 for a person with an advanced degree[7]. The fact that those with a graduate or professional degree are paid highest is indicative of their productive capacity in the knowledge economy.

---

[1] See: http://hbr.org/2014/10/the-rise-and-likely-fall-of-the-talent-economy/ar/1
[2] Hilpert, Ulrich. Archipelago Europe: islands of innovation: synthesis report. FAST, Commission of the European Communities, 1992.
[3] Porter, Michael E. "Location, competition, and economic development: Local clusters in a global economy." Economic development quarterly 14.1 (2000): 15-34.
[4] Moretti, Enrico. The new geography of jobs. Houghton Mifflin Harcourt, 2012.
[5] See: http://www.clevelandfed.org/about_us/annual_report/2005/PDF/Essay2005.pdf
[6] See: http://revolution.com/revolutionary-views/post/rise-rest#.VBn9mPldUdc
[7] Source: American Community Survey 1-Year Estimates, 2013

Specifically, a region's highest-educated workers are likely to be job creators, not just job consumers. This primarily comes about two ways: (1) through direct job creation, such as a research doctor starting a biotech spin-off firm; and (2) through indirect job creation, particularly relating to the "downstream" effect a high-paying job has on the local service economy. Put simply, more income, more spending, equals more jobs.

What metros are experiencing the fastest growth in its *concentration* of workers with advanced or professional degrees? To answer this, the analysis used data from the Current Population Survey (CPS) to compare the educational attainment rates of the nation's largest *labor forces* from 2005 to 2013. Of particular concern was the percentage of people in a regional labor force with an advanced or professional degree, and whether or not top-tier metros gained higher-skilled workers at a faster rate than second-tier metros. Here, the rate was calculated as the percent point change between a region's 2013 educational attainment rate and its 2005 educational attainment rate for workers with an advanced degree.

Table 1 shows the results. In line with the Great Divergence, Washington, D.C. and San Francisco are experiencing the 1st and 4th fastest rates of change in the employment of high-skilled workers, respectively. However, three of the top five fastest-growth metros are second tier: Providence, Indianapolis, and Cleveland—each with over a 5% percent point change. While these metros cannot match the top-tier metros in the number of advanced degree jobs gained—e.g., Cleveland gained nearly 44,000 grad-level jobs compared to 157,000 for San Francisco—the data nonetheless speak to a number of second-tier metros converging, or "moving up", into the knowledge economy hierarchy.

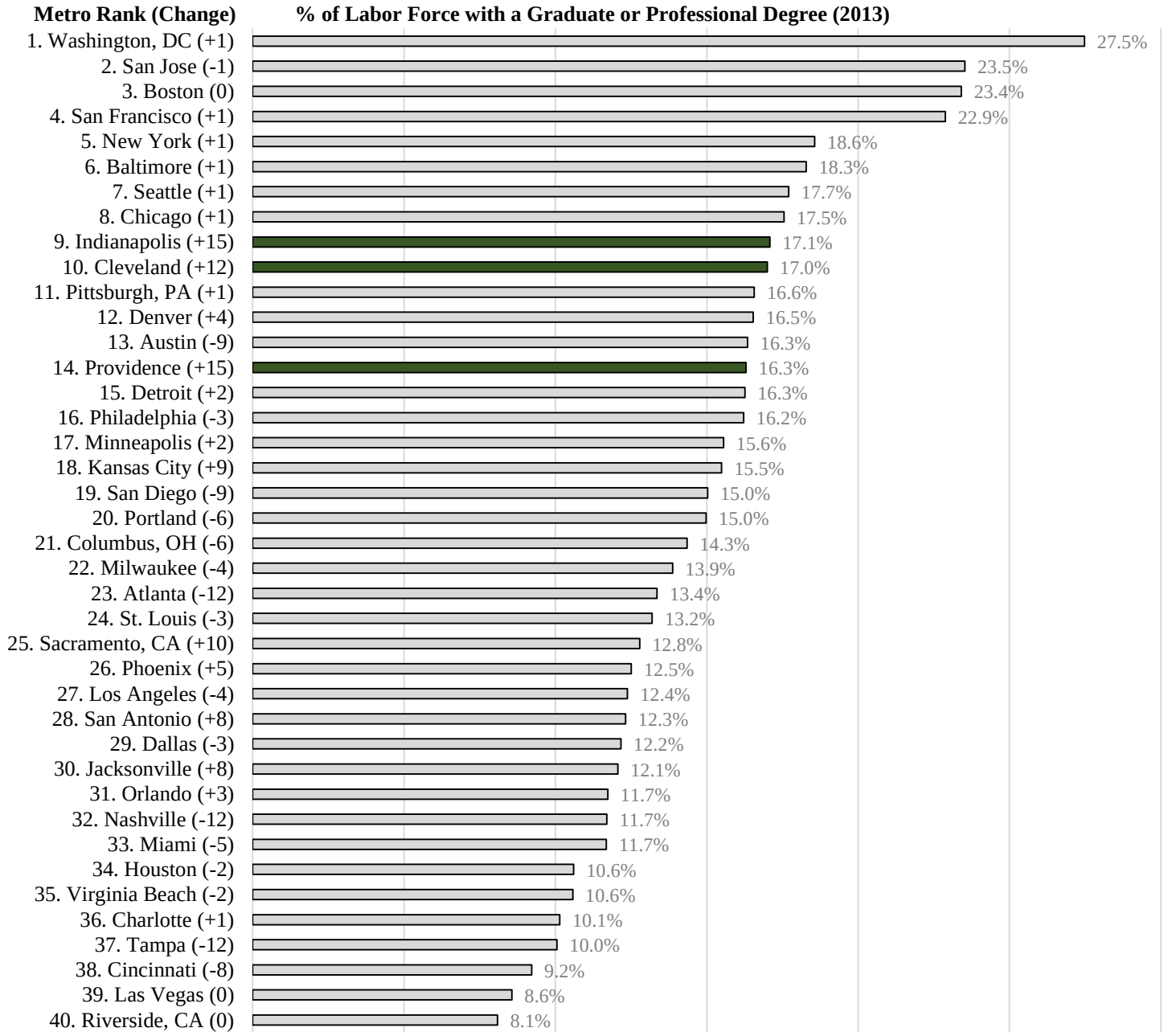
To further illustrate this point, rankings were calculated to show the metros with the highest concentration of advanced-degreed workers in the labor force for 2005 and 2013. Change

Table 1
Source: CPS 2005, 2013

	Percentage of Workers with Advanced Degree, 2005	Percentage of Workers with Advanced Degree, 2013	Percent Point Change
Washington, DC	21.58%	27.48%	**5.90%**
Providence	10.71%	16.30%	**5.59%**
Indianapolis	11.63%	17.08%	**5.45%**
San Francisco	17.49%	22.88%	**5.39%**
Cleveland	11.68%	17.00%	**5.32%**
Kansas City	10.88%	15.49%	**4.61%**
Jacksonville	7.54%	12.07%	**4.52%**
San Antonio	8.52%	12.32%	**3.80%**
Denver	12.75%	16.54%	**3.78%**
Sacramento, CA	9.07%	12.78%	**3.72%**
Detroit	12.66%	16.26%	**3.60%**
Minneapolis	12.30%	15.55%	**3.25%**
Riverside, CA	5.08%	8.09%	**3.01%**
Pittsburgh, PA	13.66%	16.57%	**2.91%**
Chicago	14.70%	17.55%	**2.84%**
Philadelphia	13.52%	16.22%	**2.70%**
Charlotte	7.62%	10.14%	**2.52%**
Orlando	9.28%	11.73%	**2.45%**
Boston	21.03%	23.41%	**2.37%**
Seattle	15.34%	17.71%	**2.36%**
Phoenix	10.19%	12.50%	**2.31%**
Milwaukee	12.32%	13.87%	**1.55%**
Las Vegas	7.08%	8.56%	**1.48%**
Portland	13.52%	14.98%	**1.46%**
New York	17.14%	18.56%	**1.42%**
Columbus, OH	12.95%	14.35%	**1.40%**
St. Louis	11.91%	13.20%	**1.29%**
Dallas	10.89%	12.16%	**1.28%**
Baltimore	17.12%	18.28%	**1.17%**
Virginia Beach	9.62%	10.57%	**0.96%**
Houston	9.65%	10.60%	**0.95%**
Miami	10.83%	11.68%	**0.85%**
San Diego	14.27%	15.03%	**0.75%**
Los Angeles	11.65%	12.38%	**0.73%**
San Jose	23.33%	23.52%	**0.20%**
Nashville	12.02%	11.70%	**-0.32%**
Atlanta	14.08%	13.36%	**-0.72%**
Cincinnati	10.23%	9.22%	**-1.01%**
Tampa	11.30%	10.05%	**-1.25%**
Austin	17.92%	16.35%	**-1.57%**

rankings were then calculated to determine just how far converging metros like Cleveland and Indianapolis were rising in the knowledge economy hierarchy. Figure 1 displays the results. Notice the top of the rankings are comprised of traditional top-tier metros. Also, the change in these metro rankings from 2005 showed no variance (ranging from -1 to +1), indicating little "wiggle room" in the top echelon from 2005 to 2013. The exception, here, was Austin, which dropped 9 spots to 13th. Moreover, two metros—Indianapolis and Cleveland—moved up from the middle of the pack to rank 9th and 10th, respectively. Providence also made a large leap: from 29th in 2005 to 14th in 2013. These figures indicate there is a notable economic restructuring occurring in Indianapolis, Cleveland, and Providence that is perhaps forming a next generation of innovation nodes.

Figure 1: Metro Rank and Rank Change in High-Skilled Labor Force, Source: CPS 2005, 2013



Now, in the case of Cleveland, do the results mean the gritty Rust Belt metro is experiencing robust job growth? Not exactly. From 2005 to 2013, 78% of the nearly 54,782 jobs added for college graduates in Greater Cleveland were for those with advanced degrees—meaning job growth for people with only a bachelor's degree was sluggish at best. What's more, job losses for Greater Clevelanders without college degrees was substantial: a decline over 83,000 jobs from 2005 to 2013. In other words, while the region's highest-skilled workforce is converging into the ranks of the national elite, the effect has yet to be found "downstream" in direct or indirect job creation.

This is not unexpected. Specifically, economic restructuring, particularly for manufacturing-based regions, is a process, and a working theory for the Center for Population Dynamics is that a concentration of advanced-degree workers is an important *leading indicator* to more widespread growth[8]. As this line of inquiry evolves, an eventual step is to set up a policy framework so that the region's growing concentration of high-skilled workers can be strategically catalyzed to lead to broader economic opportunities, rather than missed opportunities. The Center for Population Dynamics is currently constructing a working policy paper that will help drive this effort.

[8] See: http://engagedscholarship.csuohio.edu/urban_facpub/1177/