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We Got More Educated, We Are Better Off… Right?

This paper and research aims to identify the role that increasing levels of bachelor's degree attainment (BA attainment) in the adult workforce (those 25 years old or older) plays in improving the labor market as a whole, or the "place-based" effects.

Bachelor's degree attainment is already highly correlated with individual success in the labor market, and also explains point-in time regional industrial competitiveness (as measured by productivity and wages). But there are few explorations of how improving BA attainment could increase labor force participation and increase income or reduce poverty and unemployment. For example, if the Philadelphia metro area were to achieve a level of BA attainment comparable to that of the Washington, DC area, would its labor market be similar as well? **This research suggests that increasing bachelor's degree attainment improves labor market conditions only in some cases.**

Trends in Bachelors Degree Attainment from 1990-2010

The U.S. significantly increased the number of adults with a bachelor's degree or higher over the time period. The country added over 45 million people with a BA (an increase from 20.3 percent of the adult population to 28.2 percent). Increases in attainment were concentrated in a smaller number of metropolitan areas though. While most MSAs increased attainment some, only 78 regions outpaced the nation. (Only 10 MSAs had negative growth).

Largest Gains (Leader Regions)	**Smallest Gains**
San Jose, CA (14.46%)	Iowa City, IA (1.58%)
Manchester, NH (13.61%)	Yuma, AZ (1.44%)
Fort Collins, CO (13.42%)	Victoria, TX (1.40%)
Charleston, SC (12.98%)	Beaumont, TX (1.27%)
Charlotte, NC (12.57%)	Salinas, CA (1.24%)
San Francisco Bay, CA (12.49%)	Terre Haute, IN (1.22%)
Columbia, MO (12.45%)	Lebanon, PA (1.06%)
Boston, MA (12.35%)	Monroe, LA (0.80%)
Johnson City, TN (11.98%)	Oxford, AL (0.57%)
Bloomington, IL (11.46%)	Bangor, ME (0.37%)
Lawrence, KS (11.45%)	Merced, CA (0.33%)
Dubuque, IA (11.32%)	Abilene, TX (0.16%)

Question: Of the 78 leader regions, which ones saw improvements in the following outcomes (referred to as Positive Outcomes below): (1) increase in per capita income (2) increase in labor force participation and (3) decrease in poverty and (4) decrease in unemployment (relative to the nation)?

Four of Four Positive Outcomes	Three of Four Positive Outcomes	Two of Four Positive Outcomes	One of Four Positive Outcomes	No Positive Outcomes
21	13	17	15	12

The table above shows that only a fraction of leader regions saw improvements across all labor market metrics between 1990 and 2010. In order to better understand differential labor market outcomes among leader metro areas, I conducted a cluster analysis, which will be followed by a discriminant analysis to identify the "ties that bind" the clusters.

Cluster Analysis

Method – hierarchical cluster analysis, which is an inductive approach similar to a method developed by Hill and Brennan (2000). The cluster analysis identifies two potential solutions – a 15-cluster and a 5-cluster solution. The 15-cluster solution can be thought of as a "sister region" solution and the 5-cluster solution a "degrees of success" solution. The 15-cluster solution provides rich information on the region-level factors underlying different labor market outcomes in high-bachelors degree attainment metros.

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Summary of 15-Cluster Grouping

Cluster	Avg. BA Change	Avg. Unemp. Ch.	Avg. LF Change	Avg. PCI Change	Avg. Pov. Change	LF Size	Number of Regions
1	10.9%	3.1%	0.0%	4,461	2.9%	159,047	3
2	10.5%	2.0%	1.5%	3,391	2.3%	672,003	8
3	9.9%	1.1%	0.4%	1,278	-0.2%	443,157	11
4	9.4%	2.4%	2.5%	2,096	1.2%	571,774	8
5	10.8%	1.8%	2.8%	2,507	1.4%	859,689	8
6	9.7%	-0.1%	0.7%	779	-0.6%	2,453,472	8
7	9.8%	-1.4%	-1.9%	-186	-2.0%	655,097	8
8	9.7%	-1.2%	-0.6%	1,902	-1.6%	869,649	4
9	10.5%	-3.0%	-3.4%	8,234	-1.4%	148,817	1
10	8.8%	-0.2%	2.1%	-789	-0.7%	1,088,355	5
11	10.4%	-2.0%	-5.5%	-6,683	-3.9%	1,872,437	3
12	9.3%	0.2%	0.4%	-1,574	-1.0%	2,460,997	6
13	8.8%	-1.4%	-1.6%	-2,900	-1.8%	4,369,150	3
14	10.9%	0.0%	3.8%	14,041	8.3%	223,202	1
15	9.8%	1.5%	2.1%	-9,187	-16.8%	588,842	1

The cluster analysis suggests that increased bachelor's degree attainment is related to positive labor market outcomes in some regions but not others – for example, cluster 13 (St. Louis, Los Angles, and Detroit metros) increased attainment, but saw no positive outcomes. The reasons for lower success may be different though – immigration in Los Angeles and economic restructuring in Detroit and St. Louis.

Next Steps: Discriminant Analysis

The Pittsburgh, PA MSA and the Asheville, NC MSA had nearly identical change in BA attainment between 1990 and 2010 (10.24 and 10.26 percent respectively), but divergent outcomes. During the period, Pittsburgh saw an increase in labor force participation, a decrease in poverty and increasing per capita income. It weathered the 2008 economic crisis with only a minor increase in unemployment, and its unemployment rate, at 8.7 percent, was still well below the national rate of 10.8 percent in 2010). In contrast, Asheville saw its unemployment rate go from below national average to above it, and saw negative changes in labor force participation, per capita income, and poverty between 1990 and 2010.

Unpacking the divergent outcomes among regions -- and identifying the underlying reasons for the divergence -- can help policy makers improve the connection between policies that support the top of the labor market with policies aimed at workers who do not hold the credentials and are more likely to be in a tenuous work position. Using discriminant analysis I will test the roles that factors like residential segregation, immigration, growth in skill biased, and trends in the age and make up of the labor pool play in whether or not a metropolitan area sees a better labor market with increased bachelor's attainment.

Conclusions and Policy Implications

- Increasing bachelor's degree attainment alone does not guarantee an improved labor market – metropolitan areas experience very different outcomes even when they have similar (and above average) improvement in bachelor's degree attainment.
- Increasing bachelor's degree attainment region-wide does not necessarily improve employment opportunities for lower skilled and middle skilled workers in that region.
- Talent attraction and retention programs (efforts to improve the residential attractiveness) are important for the competitiveness and productivity of a region, but must be leavened with programs for other segments of the labor market where a bachelor's degree or higher is not appropriate.
- Regional context is important – Los Angeles and Detroit and Asheville and Pittsburgh see similar outcomes for different reasons. Programs should address these significant differences.