

# Skilled Workforce and R & D

Measures both the quality of the region's workforce and level of innovation activity.

Skilled Workforce and R & D Critical Variables	Northeast Ohio 2000	Northeast Ohio 2008	Top Midwest Peer Minneapolis 2008
University Research & Development (Per Employee)	\$76.2	\$137.0	\$363.0
Percentage of Population in Professional Occupation	31.6%	34.2%	41.7%
Percentage of Population With Graduate/Professional Degree	7.7%	9.0%	12.1%
Percentage of Population With Bachelor's Degree	14.3%	16.3%	25.4%
Small Business Innovation Research/Small Business Technology Transfer Awards (Per Employee)	\$6.51	\$7.25	\$7.30

Investments by the **Fund for Our Economic Future** Impacting Skilled Workforce and R&D

- NEO@Work
- Education Works
- NorTech
- Social Innovation Fund

## Educational Attainment and Intellectual Property Development Matters Most in Improving Per Capita Income

By James Robey, PhD  
Team NEO

Education Pays – Get Yours is the well-tuned slogan of a social media campaign created by PolicyBridge urging young African-American males to go to college. The Dashboard suggests that such activity will, over time raise per capita income. Entrepreneurial organizations, like Team NEO, reinforce the notion that quality talent is a critical factor for attracting businesses to Northeast Ohio. If we are going to improve per capita income in Northeast Ohio, this matters.

For companies, human capital is likely the hardest factor to move and to find. The quality of the workforce, as well as quality of capital (such as sites, buildings and access to technology), all lead to a company's ability to produce, compete and survive. In both earnings and

unemployment, education and training matter. In 2009, the average unemployment rate for all U.S. workers was 7.9 percent, but was 9.7 percent for high school graduates and 14.6 percent for workers without a high school diploma. In contrast, the unemployment rate among workers with some college was 8.6 percent, an associate's degree was 6.8 percent, a bachelor's degree was 5.2 percent and for those with advanced degrees the rate was less than 4 percent. Similarly, in 2009 median earnings for all U.S. workers were \$774 per week; for workers with a high school diploma and those without they were \$626 and \$454 per week, respectively. Median earnings per week were \$600

Continued next page

# Skilled Workforce and R & D (continued)

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for U.S. workers with some college, \$761 for those with an associate's degree, \$1,025 for those with a bachelor's degree and \$1,257 to \$1,532 for those with advanced degrees.

When looking at Ohio, the relationship between education and unemployment is even more troubling. For those with less than a high school diploma, the unemployment rate was nearly 20 percent. For those with a high school diploma or equivalent certificate, unemployment was worse than the U.S. average, at 8 percent. For some college or an associate's degree, the average unemployment rate was about 7 percent and for a bachelor's degree and higher, it was less than 3 percent.

According to Claritas, education levels in Northeast Ohio in 2010 tell us that the region needs more residents with bachelor's degrees or higher. In our region, 24 percent of the population has a bachelor's degree or higher compared to national rates of 27.4 percent.

Northeast Ohio compares favorably in both rates for high school graduation (31.8 percent for Northeast Ohio vs. 29.6 percent for the U.S.) and some college/associate's degree (27.5 percent both Northeast Ohio and the U.S.).

In comparison with target and high-performing peer regions, such as Raleigh-Durham, Minneapolis-St. Paul or Austin, Northeast Ohio Metropolitan Statistical Areas (MSA) do not compare favorably. A look at the 2000 Census data for "percent of population with college or professional degree" shows the Akron MSA ranks 156th (29.45 percent), the Cleveland MSA is 162nd (29.03 percent), the Canton MSA is 269th (22.49 percent) and the Youngstown-Warren MSA is 296nd (20.07 percent). Our peer regions have a significant lead - Raleigh-Durham (45.92 percent), Austin (42.13 percent), Minneapolis-St Paul (40.92 percent), Orange County (38.62 percent), San Diego (37.12 percent) and Chicago (35.74 percent).

So why does all this matter? If Northeast Ohio is going to improve per capita income, we need to improve our educational attainment rates and innovation activity. Capital is mobile—people will invest where they can get the most return for their investment. Commodity products that use low-skilled labor cannot be produced as cheaply in Northeast Ohio or the United States as they can be produced in China and increasingly in Vietnam.

A paraphrase from a former chief economist for a major automaker summarized global competition best, stating, "People all over the world want to work, and can be trained to do the work we need." When competing in a global economy, Northeast Ohio workers need to create a product that is differentiated with a greater return or higher "value added." To do this in manufacturing, one of Northeast Ohio's competitive strengths, or in the services and information industries, Northeast Ohio needs a flexible and well-trained workforce. Both of these features come with increasing the level of education and training within the population.

Northeast Ohio has 29 colleges and universities, as well as for-profit training companies, career centers and other trainers such as union apprentice programs and internships. These institutions all have the potential to increase the skills and skill levels of future, incumbent, transitional workers and dislocated workers. The upskilling of all workers is essential to maintaining and improving the wealth curve of the Northeast Ohio region. To do this, we must not assume that the targets for college completion are just achieving the U.S. average rates. We need to target and achieve the completion rates of high performing economies such as those in San Diego, Austin and Minneapolis-St Paul.