

## Metropolitan areas with a more educated population have higher employment rates, especially for those without a college degree.

*U.S. unemployment still lingers above recent historical averages, but some areas are doing much better than others. In particular, areas with higher average education levels have higher employment rates and lower unemployment rates, and this is not just true for highly educated individuals. By examining the 'externalities' of education, [John Winters](#) finds that less educated workers especially benefit from the education received by their neighbors and co-workers.*



Social scientists and statisticians have consistently documented that workers with higher education levels are on average more productive, earn higher wages, and are more likely to be employed than their less educated counterparts. Thus, areas with a more educated population have higher employment rates, in large part because their educated workers are more likely to be employed. But there is more to the story. Even less educated individuals tend to have higher employment rates in highly educated cities. Why would this be the case?

Economists have long suggested that education creates a number of positive externalities, i.e., indirect benefits to people other than the person receiving the education. One important externality results from the creation of new ideas. Highly educated workers are more likely to create new ideas, new ideas lead to new production possibilities, and new production possibilities lead to better employment opportunities for workers of all education levels. Thus, highly educated people are more likely to be job creators.

A second education externality comes from peer-to-peer learning. Much of what people learn in life comes from interacting with other people and this often unintended.

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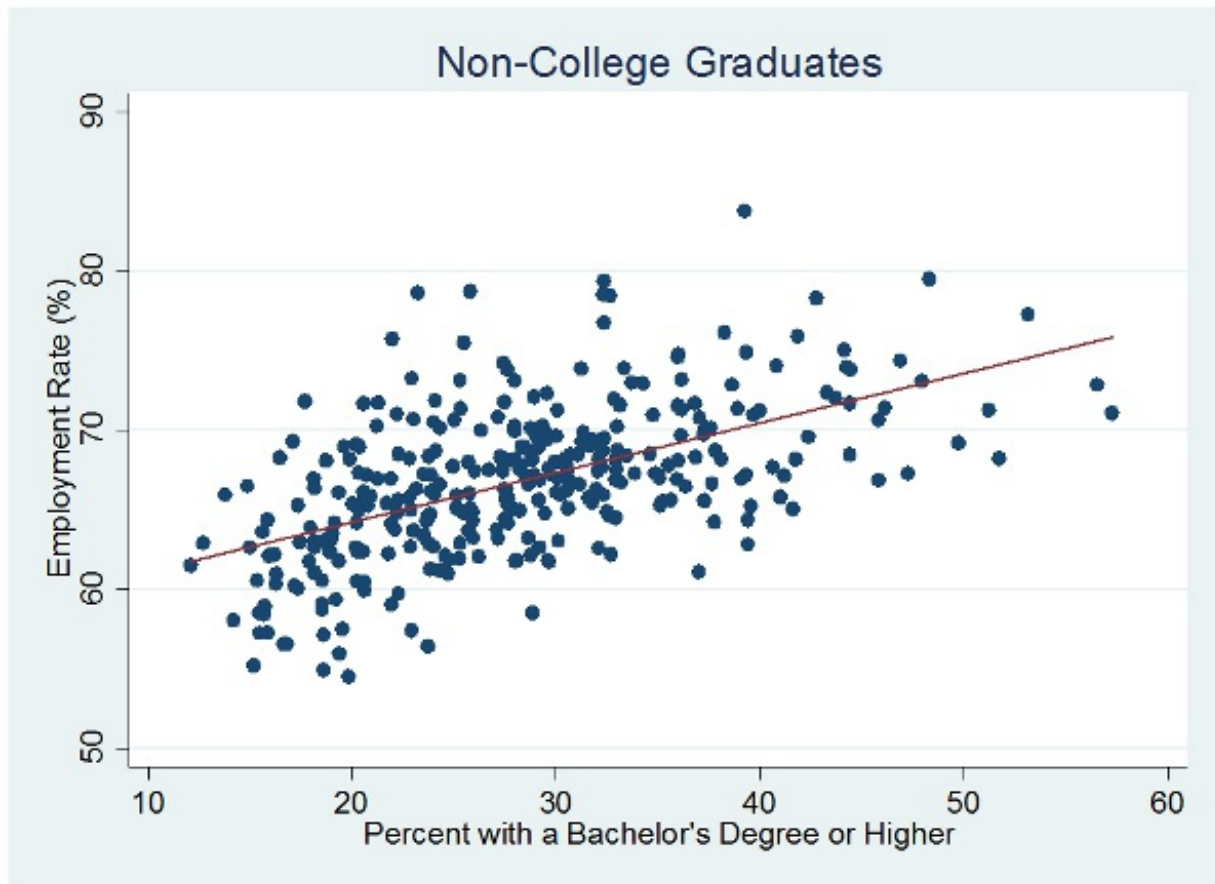
People accidentally learn all sorts of useful information from others such as how to operate tools and equipment, how to communicate, and even how to think analytically. For example, office workers might learn from their peers new time-saving commands in software programs like Excel and healthcare workers might learn from their co-workers more effective treatment techniques. Highly educated workers typically have greater knowledge and skills to share, which increases the amount of new skills that co-workers can learn from them. Being around smart people, might truly make us smarter and more productive. These newly learned skills increase employment opportunities.

A third education externality on employment opportunities results because educated workers have higher average incomes and spend part of their incomes on services produced in their local economy. The local demand for services like childcare, healthcare, food service, personal care, and home care and maintenance all increase with income, so more highly educated workers spend more on these services and they purchase them primarily in their local labor market, which creates more jobs for workers providing these services.

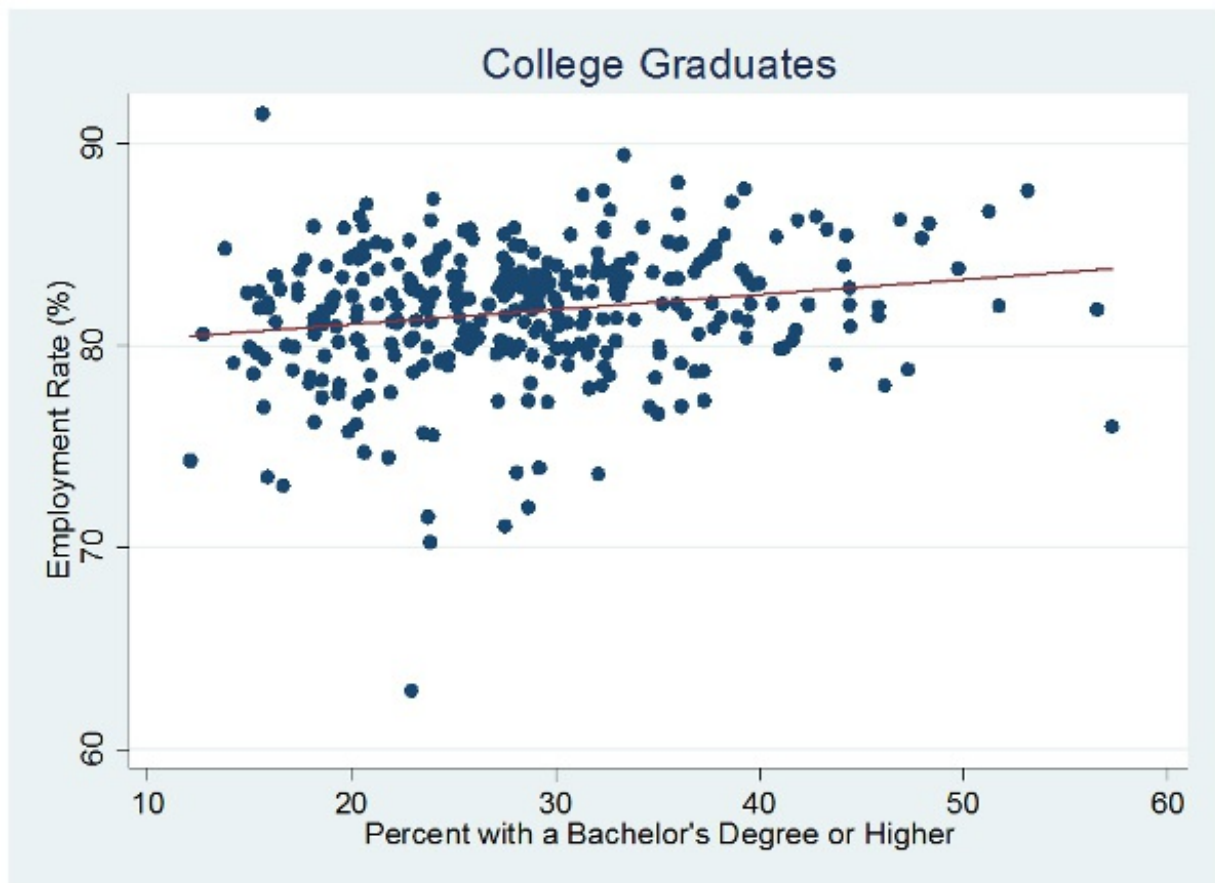
Together these education externalities increase employment rates in highly educated areas for both highly educated and less educated individuals. The education level in an area is commonly measured by the percentage of the adult population ages 25 and older with at least a bachelor's degree. The two figures below plot the relationship between the college-educated percentage of the adult population and the employment rate for non-college graduates (Figure 1), and college graduates (Figure 2). The employment rate for each group is defined as the percentage of persons ages 25-65 in the education group who were employed at the time of the survey. The data are computed by the author using the 2009-2011 American Community Survey microdata available at [IPUMS](#). Each data point represents one of 325 metropolitan

areas identified in the dataset.

**Figure 1 – College-educated percentage of adult population and employment rate for non-college graduates**



**Figure 2 - College-educated percentage of adult population and employment rate for college graduates**



These figures show that there is a positive relationship between the local education level and the employment rate for both non-college graduates and college graduates. However, the local education level is much more strongly correlated with the employment rate for non-college graduates ( $r=0.55$ ) than with the employment rate for college graduates ( $r=0.19$ ). Furthermore, a linear regression model suggests that increasing the share of the population with college degrees by 10 percentage points increases the employment rate for non-college graduates by 3.1 percent but only increases the employment rate for college graduates by 0.7 percent. Both groups benefit from being in a labor market with a high percentage of college educated workers, but non-college educated persons benefit the most. These basic results also hold for earlier time periods even when using more sophisticated statistical techniques and controlling for other individual and local labor market characteristics.

The general implications for policymakers are clear. Higher education creates benefits for both the college educated and non-college educated individuals in the same metropolitan area. Policymakers can improve local economic conditions by increasing the number and percentage of college-educated workers in their local area. It is less clear how exactly an area should do this, but it likely includes increasing education opportunities for the area's residents, and making the area attractive to educated workers in order to keep the area's homegrown educated talent from leaving and to attract educated talent from other areas.

*This article is based on "Human Capital Externalities and Employment Differences across Metropolitan Areas of the USA" in the September 2013 issue of the Journal of Economic Geography.*

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*Note: This article gives the views of the authors, and not the position of USApp– American Politics and Policy, nor of the London School of Economics.*

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