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Ohio can play offense with the AI revolution by investing in quality education: Eric A. Hanushek (Opinion)

Updated 2:03 AM;

Posted 2:00 AM



Ohio can build on relative strength in math education to shore up the educational skills of Ohioans and better position the state for the coming artificial intelligence revolution.



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COLUMBUS, Ohio -- All states today worry about the coming of the machines - the artificial intelligence revolution. Ohio more than most other states has already seen much of the potential for automation changing the face of employment. The answer for the future is investing in "automation insurance" - quality education.



History has previously seen large changes in employment. Much has been made of the Industrial Revolution that displaced large numbers of workers in England. U.S. agriculture, once the dominant employment sector, has seen new technologies lead to mammoth out-movement of people even while maintaining total output. Changes in manufacturing productivity did that same over the last half of the 20th century. And now artificial intelligence, robotics, and the replacement of routine jobs with machines suggest new upheaval on the horizon.

In all of the historical radical changes in employment, two things have been constant. First, there are great short-term costs to individuals caught in the affected sectors. Second, reductions in demand for workers in those sectors have been met by expansions in other industries.

Is the current onslaught of automation different from these past changes? It may be quicker, and it may be deeper in its incidence. But it is opening up a variety of new and often unanticipated other opportunities, and there is little reason to expect this period of change to differ qualitatively from those in the past.



Ohio and other states in the region may be in the vanguard of change. Growth in GDP per capita in Ohio has been in the bottom five for states since 1970. The bottom 15 growth states include Michigan (dead last), West Virginia, Kentucky, Indiana, Illinois, and Pennsylvania,

Whether these states recover from the robot shock or not will depend on the skills of the population. We know that the people who weather these employment shocks - and who benefit from them - are those who are most adaptable to economic changes. We also know that those who are most adaptable are those with better education. These are the people who have the cognitive skills to deal with new situations and new problems.

Ohio is actually pretty well-positioned. The performance of Ohio students on the National Assessment of Educational Progress (NAEP, or the "Nation's Report Card") indicates that Ohio schools are providing the sound basic skills that can be developed into the talent to adapt. Eighth-graders in Ohio placed 11th in state rankings for math in 2017. Moreover, this represents an improvement over the past half dozen years.

The challenge for Ohio is to build upon these schools. Ohio must expand the completion of high-quality secondary schooling, and it must carry these students into completion of post-secondary schooling.



Historical patterns of growth of state incomes shows that the skills of a state's labor force are key to long-run development. Right now, because of the sluggishness of the Ohio economy over the past decades, some of the best Ohio students leave for employment opportunities in other states. Nonetheless, students educated in Ohio will still be the vast majority of future workers in Ohio. Thus, schools in Ohio remain key to the future of the Ohio economy.

By historical patterns, if Ohio could bring its average students up to the levels seen in Massachusetts or Minnesota, it could expect average GDP per capita (compared to a no-improvement economy) to be some 5.5 percent larger over the remainder of the century. The gains do not come immediately, but they clearly justify taking actions now to improve the Ohio of the future.

The only way both for individuals and for the state of Ohio to prepare for the changing economy of AI is to have a population with the skills to adapt to the upcoming economic challenges.



Eric A. Hanushek is the Paul and Jean Hanna Senior Fellow at the Hoover Institution at Stanford University. He will be addressing Ohio's mayors and community leaders Sept. 10 at a forum at The Ohio State University, where he will focus on school quality and how it relates to educational attainment and economic vitality. Participation in the Ohio Educational Attainment Summit is by invitation for Ohio mayors, chamber of commerce and business leaders. Others will be wait-listed and admitted as space permits.

