How Will Technology Affect Immigrant Workers?

News media and analysts have given much attention to automation — the process of technology taking over manual tasks — and how it will affect jobs in the United States over the next few decades.

The impact could be significant on the immigrant population, especially those with "low-skilled" jobs, defined as jobs that require a high school diploma or less. Many fear that increased automation will reduce the number of overall jobs available to the general population as well as immigrants.

Experts agree that automation will affect certain professions to a degree. In a review of the effects of automation on the global job market, the management firm McKinsey & Company stated "the right level of detail at which to analyze the potential impact of automation is that of individual activities rather than entire occupations." Thus, even though a machine might replace a human manufacturing job, the incident does not tell us how automation will affect manufacturing jobs more broadly or the future global economy. Already, workers are expected to use technology to complete more mundane tasks while they accomplish more creative tasks. This means most jobs will not be fully "taken" by robots or other technology. Rather, workers will continue to incorporate technology and automation into a larger share of tasks.

The exception to this rule is jobs in office administration, sales, data entry and transportation. These jobs likely will be fully, not partially, automated. Given the density of at-risk jobs in certain regions, the impact of automation on the American workforce likely will be polarized by region. A study by the Institute for Spatial Economic Analysis at the University of Redlands found that cities — especially Las Vegas; Riverside and– San Bernardino, California; and El Paso, Texas —are especially vulnerable to automation-induced job loss because of their high number of low-skilled positions. Immigrants make up a relatively larger share of these cities' populations compared with other places in the U.S., and so immigrants will be disproportionately affected. The report found that these immigrant-filled jobs are becoming automated because trends in automation are affecting low-skilled and low-wage jobs across the country, beyond middle-class Rust Belt manufacturing positions.

Furthermore, full or partial automation of certain jobs bolsters American employment. If employment is viewed in the fixed-pie sense, wherein one robot would substitute for one human worker, automation would lower employment prospects for both native and immigrant workers. But it is also clear that automation is needed to maintain a country's economic competitiveness in a given industry, such as manufacturing, which in turn helps the industry employ more human

workers. Additionally, workers may benefit as technology increases productivity and creates new jobs. For example, an increased number of automated service kiosks will generate a need for more repair workers.

Moving workers into mid-level jobs and allowing new technology to bolster that upward mobility could effectively mitigate the effects of automation on working- and middle-class jobs. The automation of low-skilled jobs will affect a large number of immigrant workers. Thus, immigrant and native workers can advocate for technological benefits to create more middle-class and lower-skilled economic opportunities. Instead of creating a competition between native and immigrant workers for a fixed number of low-skilled positions, technology can create new benefits and opportunities for all middle- and low-wage workers.

Immigrant workers, native-born workers and even robot workers can work together to stimulate economic growth and improve job opportunities. Automation is inevitable and plays an important part in growing the U.S. economy and allowing the U.S. to compete at a global level. Skills training in automatized innovation and in maintaining and servicing the machines that drive automation must be part of the funding appropriated for skills and workforce development.

As the history of automation has taught us, certain jobs will be lost. However, what is critical is that we prepare our workforce to fill other jobs by giving them the education and skills to do so.