Community College Program Choices in the Wake of Local Job Losses

Author: Riley K. Acton (Miami University)

Innovations in automation and artificial intelligence are increasingly making tasks traditionally done by humans obsolete, leading to changes in the skills desired by employers. While the productivity and efficiency gains introduced by these technologies often lead to the emergence of other tasks and jobs, new labor market entrants and displaced workers alike will often find it necessary to invest in skills and knowledge that complement technological changes within existing industries, or to better prepare them for entry in to new industries.

Community colleges and other two-year institutions can play a pivotal role in supplying the education and training to allow potential employees access to stable and potentially well-paid employment given existing worker shortages. Yet, little is known to this point about how labor market opportunities impact the program choices of those who attend these institutions.

In "Community College Program Choices in the Wake of Local Job Losses," Riley Acton uses administrative data on the education choices of recent high school graduates in Michigan to study how labor market conditions influence students' community college program decisions. Acton examines how local, occupation-specific job losses that potentially alter the expected relative benefit of pursuing different programs affect students' program choices upon enrollment. Exploiting plausibly exogenous variation in exposure to mass layoffs and plant closings across cohorts leaving high school, Acton shows that student program decisions respond to observed local labor market conditions.

Acton finds evidence that increases in layoffs in an industry reduces the share of a county's high school graduates enrolling in the corresponding program at the community college. The preferred main result suggests that a one standard deviation increase in layoff exposure decreases enrollment in the corresponding program by 3.8 percent. Rather than reducing enrollment in community college programs overall, however, there is evidence that students are substituting into the "next best" program in terms of skill requirements. Using rich data on occupational characteristics available in O*NET, Acton documents that students primarily substitute into programs that feature similar skill requirements. For example, layoffs in health-related occupations decrease enrollment in health programs but increase enrollment in law enforcement programs. By contrast, layoffs in STEM and skilled trade occupations lead to little substitution to other programs perhaps because there are no close substitutes.

According to Acton, these results inform several policy implications both for Michigan's community colleges and related education policy efforts at the national level. First, there should be more coordination between the program and curriculum choices offered by community colleges and local labor market conditions. Institutions should seek to better anticipate student demands in response to local labor market shocks. Community colleges would require more resources, however, to ensure they can flexibly expand the supply of alternative programs, particularly those with relatively higher labor market returns. Finally, Acton suggests that both community colleges and local high schools should look to provide more information on local and non-local labor market opportunities to facilitate better educational choices by students that align with their geographical preferences and constraints.