Automation technologies diffuse unevenly across time and space and their impacts on employment may differ across subnational regions, due to the latter being shaped by different past and current economic structures. The purpose of this paper is to utilize these economic structures to explore the link between firm-level automation technology adoption in manufacturing and municipal-level employment outcomes. Using Swedish register data featuring firms and their respective establishments, and workers during 1997-2021 and a shift-share instrumental variable framework, robust results are retrieved indicating an associated positive relationship between automation and employment growth in manufacturing. When allowing for municipal heterogeneity, the relationship weakens in magnitude in the manufacturing dense and rural parts of the country. Negative local employment spillovers in nonmanufacturing sectors are detected. The increase in manufacturing automation brings no impact on overall municipal employment growth. These findings suggest that manufacturing automation preserves jobs while overall municipal employment growth remains unaffected, possibly due to worker reallocations between automating manufacturing establishments and nonmanufacturing establishments.