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‘Train to opportunity: The effect of infrastructure on intergenerational mobility’

Can infrastructure promote labour opportunities and break the link between parents and their children's economic status? We exploit the expansion of the rail network to estimate its causal effect on intergenerational mobility in nineteenth century England and Wales. For this purpose, we implement a fully automated probabilistic method to link individuals across the newly digitized I-CeM 100% censuses of 1851 to 1911. We identify over 500,000 father and son pairs and geolocate their place of residence down to the street level. We measure access to the railroad network using the distance from the place of residence to the nearest train station and compare the intergenerational mobility between sons that grew up closer to the train station. We address the non-random location of rail network by creating a hypothetical railway map based solely on geographic cost consideration. The baseline identifying assumption is that individuals who grew up closer to a railroad station experienced changes in economic opportunities only through the access to railroad network, conditional on parish and year fixed effects. Our instrumental variable results show that exogenous access to newly constructed railways reduce the relative importance of fathers in determining occupational choice. It leads to absolute and relative upward mobility. Sons who grew up 5km closer to the train station are 4% more likely to work in a different occupation than their father and are 3% more likely to be upward mobile. Our preliminary results suggest that this reflects both changes in migration patterns and employment structure. Better connected sons were 7% more likely to move away from the parish they grew up in and they moved further than 25km away. They were also more likely to move out of agricultural occupations and into higher skilled jobs. This has consequences for spatial inequality patterns and specialisation of local areas. Taken together our results show that infrastructure can have long run effects and improve the economic opportunity of residence.