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The spatial clustering of productive firms: Spillovers versus sorting into good locations

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Datasets used

Canadian Employer Employee Dynamics Database

Policy areas this research can inform

Business and consumer services and culture

Business performance and ownership

Context

A large literature in economics and regional science argues that firms benefit from proximity to both productive firms and greater amounts of overall economic activity. Using individual level data on all single-location firms in Montreal, Toronto, and Vancouver for the 2001 to 2012 period, this study empirically investigates these hypotheses. It finds that a 10 percent increase in the average quality of firms within 75 meters causes a firm to experience a 0.24 percent increase in productivity, with greater spillovers imparted by more productive firms. However, the study finds no evidence that firms become more productive if the total amount of economic activity increases within 500 meters holding the average quality of nearby firms constant.

Key finding

While evidence of local productivity spillovers is clear in the data, most of the block-level variation in firm productivity in tradeable services industries within Canada's largest cities is driven by sorting of better firms into better locations.

Policy implications

More productive firms in skilled services industries impart small positive productivity spillovers on their neighbours within 75 meters. While the most productive firms are in the densest and most productive locations, mostly downtowns, it is not the case that firms benefit from a greater quantity of economic activity within 500 meters conditional on nearby average firm quality. Therefore, policy should be oriented toward creating more good locations to do business. Attracting the best firms to cluster in one location is almost zero sum, as approximately equal sized productivity spillovers are lost in these firms' former locations.

Read the full article here

Baum-Snow, N., Gendron-Carrier, N., & Pavan, R. (2024). Local Productivity Spillovers. *American Economic Review*, *114*(4), 1030–1069. https://doi.org/10.1257/aer.20211589

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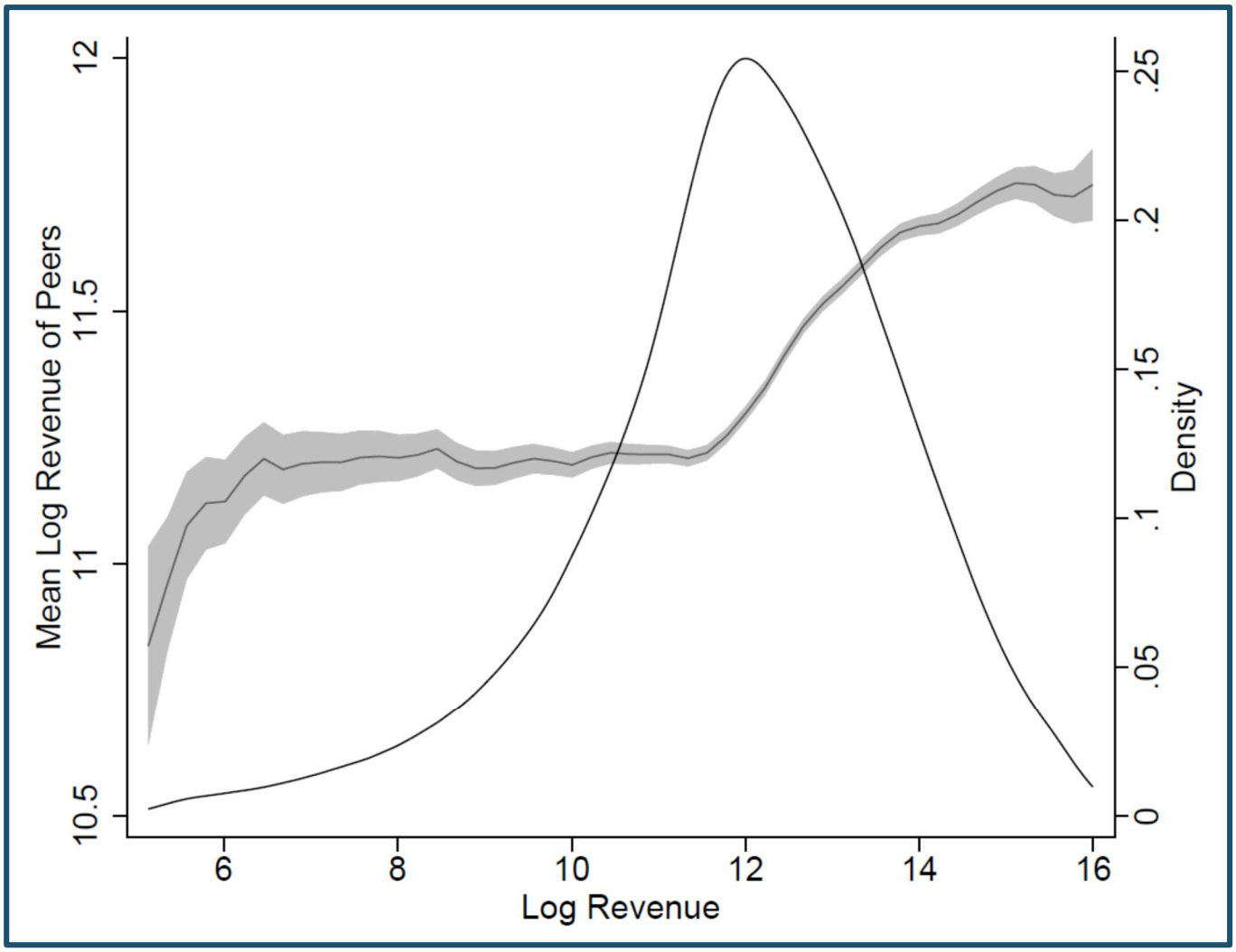

The bell-shaped line depicts the distribution of the natural log of firm revenue across all firm-years in the estimation sample. Its scale is on the right axis. The line bordered by shaded bands shows the nonparametric relationship between firm log revenue and the average log revenue of all single location firms within 75 meters (left axis). 95% confidence intervals are shaded in grey. The plot shows a strong positive sorting of higher revenue firms into neighbourhoods with higher average revenue peers above the median of the log revenue distribution.

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