Empirical Polycentricity: The Complex Relationship Between Employment Centers

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Abstract

Our paper empirically demonstrates that employment subcenters in large urban areas have important economic relationships with each other, and not solely with the central business district (CBD). Using data from Houston, Texas we estimate polycentric density functions and show that “total” gradients differ from gradients using only own-center coefficients. We model asymmetry by showing density is very different for centers with overlapping areas of influence. We conclude that subcenters have important yet heterogeneous linkages to each other in addition to the CBD, and that therefore the polycentric city is more complex than simply having additional centers mimicking the CBD.

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