

Understanding Employment Activity Compactness from Mobile Phone Positioning Data

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Abstract

Previous studies on employment activities are mostly based on travel survey or GPS tracking which are relatively partial and limited in sampling size. Mobile phone data which record people's mobility patterns in different time of the day, could be used to track people's employment activities at a large scale. In this research, mobile phone positioning data of one typical working day in Shenzhen, China is used to identify people's homes and work places. We generate their commuting patterns among different traffic analysis zones. Employment activity compactness is used to understand people's commuting patterns. We find that mobile phone positioning data is reliable to generate people's commuting patterns, and their employment activities are more compact in the central area than those in the suburban areas.

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