

計畫名稱: 都市通勤與住業均衡: 應用 **ETC** 大數據分析臺灣超額通勤狀況

計畫編號: **MOST 110-2121-M-003-003**

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Abstract

Rapid urban growth extends the boundaries of cities and makes people spend more time commuting from home to work place. The journey-to-work trips generate traffic congestion and also air pollution. It is essential to explore if the commuting pattern is sustainable under current urban development. The conceptual theory of jobs-housing balance is to figure out if workplace locations are not far away from residence so workers can save time on commuting. To quantify jobs-housing balance, the indicator of excess commuting is proposed. The indicator is adopted to measure the degree of separation between workplace and residence. Electronic Toll Collection (ETC) data, a unique and publicly available data set, is introduced to the calculation of excess commuting and examine jobs-housing balance of Taiwan cities. This study aims to examine jobs-housing balance through the use of big data to calculate excess commuting of Taiwan cities. The analytical results will be further used for spatial-temporal representation of urban commuting, and help researchers highlight potential urban issues to improve jobs-housing balance in Taiwan.