

# Reference: Example of Analysis of Work Style Reform Utilizing Mobile Location Data

- The analysis used data on the hourly floating population (aged 20-59) in Tokyo 23 wards on a weekday in February estimated based on mobile phone information. The growth in the nighttime population is lower than that in the daytime population (the difference between the year-on-year change in the daytime population and that in the nighttime population is minus). It appears that men in their 20s and 30s are benefiting especially from work style reforms.
- After classifying grid cells into 4 regions by industry composition, the daytime and nighttime populations of each region were examined. In business districts where financial companies, etc. are mainly located, the growth in the nighttime population is far lower than that in the daytime population. Meanwhile, in entertainment districts where the restaurant industry, etc. flourish, the nighttime population does not decrease sharply, indicating that people spend more time on dining-out and shopping thanks to reduction of overtime work. In addition, the heatmap of the difference between the year-on-year change in the daytime population and that in the nighttime population shows that many areas experience a decline. In particular, a decreasing trend is found in business districts (A-C), while an increasing trend, in entertainment districts (D-F).

Chart I Hourly Population in Tokyo 23 Wards and Rate of Change

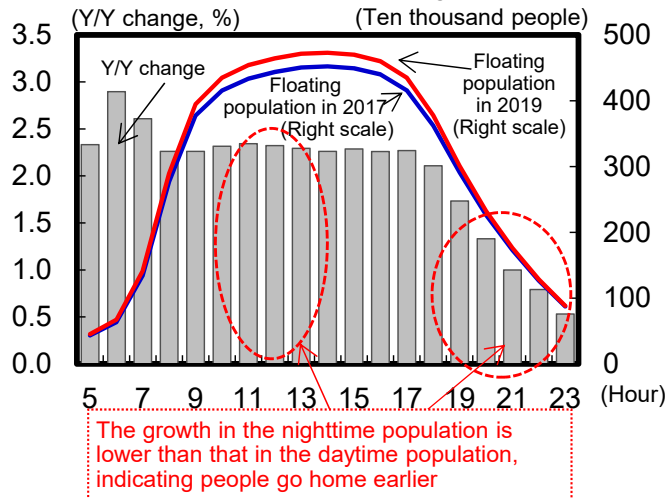
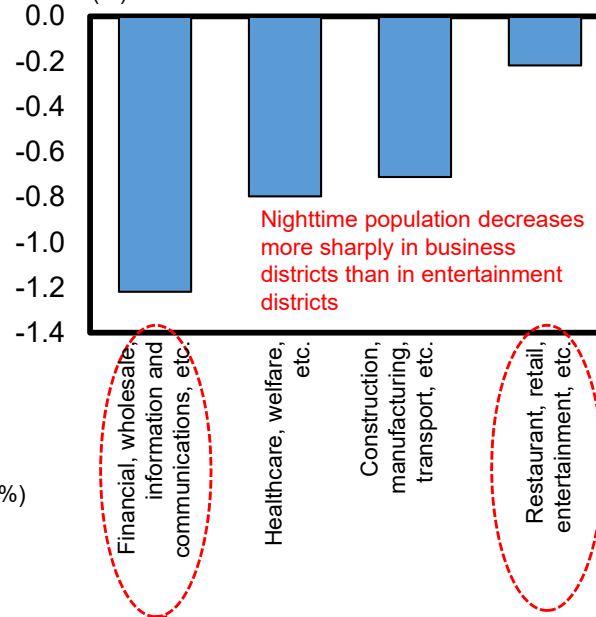
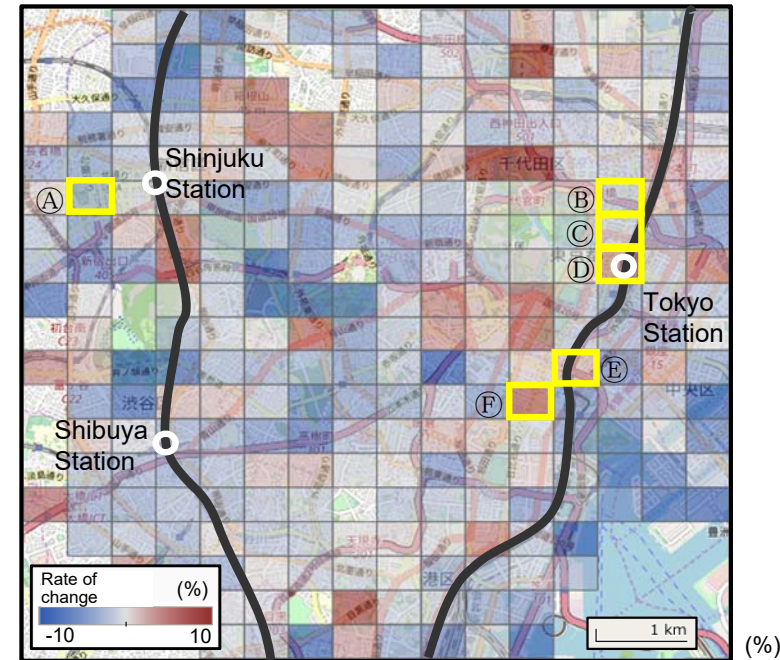


Chart II Difference between Y/Y Change in Daytime Population and That in Nighttime Population by Region (Median)



<Industries flourishing in respective regions>

Chart III Heatmap of Difference between Y/Y Change in Daytime Population and That in Nighttime Population and Rate of Decrease in Major Grid Cells



	Men and women total			Men	Women
	Y/Y change in daytime population	Y/Y change in nighttime population	Difference	Difference	Difference
Overall	2.3	1.2	-1.1	-1.2	-0.7
20s	3.9	2.7	-1.2	-1.6	-0.7
30s	-1.1	-2.6	-1.5	-1.6	-0.9
40s	2.4	1.6	-0.8	-0.6	-1.3
50s	5.3	5.3	0.0	0.2	-0.4

Business districts	Y/Y change in daytime population	Y/Y change in nighttime population	Difference
Ⓐ Nishi-shinjuku	8.2	4.2	-3.9
Ⓑ Uchikanda	7.2	5.3	-1.9
Ⓒ Otemachi	14.4	13.1	-1.2

Entertainment districts	Y/Y change in daytime population	Y/Y change in nighttime population	Difference
Ⓓ Marunouchi	-2.3	1.8	4.1
Ⓔ Ginza	1.0	2.9	1.8
Ⓕ Nishi-shimbashi	6.5	13.4	6.9

(Note) Compiled based on Mobile Spatial Statistics®, NTT DoCoMo Insight Marketing and FY2016 Economic Census, MIC.