ANALYZING THE RELATIONSHIP OF WALKING AND THE BUILT ENVIRONMENT

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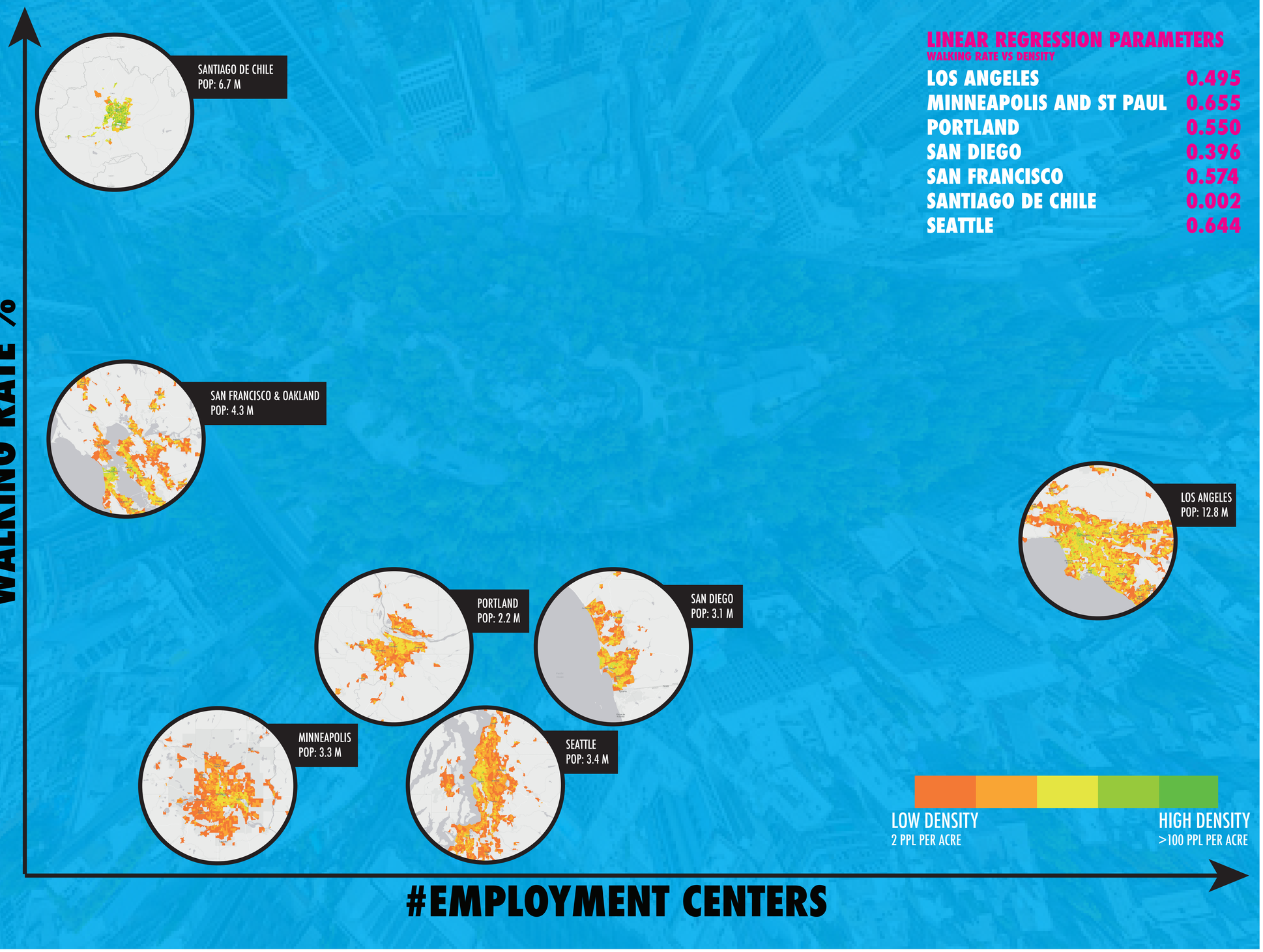

LINEAR REGRESSION PARAMETERS
WALKING RATE VS DENSITY

LOS ANGELES	0.495
MINNEAPOLIS AND ST PAUL	0.655
PORTLAND	0.550
SAN DIEGO	0.396
SAN FRANCISCO	0.574
SANTIAGO DE CHILE	0.002
SEATTLE	0.644

Exploring relationships between activity density and walking behavior

With the current interest of planning agencies in increasing walking in cities due to the benefits that walking causes in the urban context, understanding walking behavior has become one of the most important challenges in travel behavior theory. It has been shown that larger residential density levels correlate with larger walking rates within cities. However, behavior patterns differ across cities. Our hypothesis is that the combination of the number of employment centers, the residential density gradients, and the overall size of the city cause different regimes of walking behavior. A larger overall density causes a highly walkable regime with little increment of walking rates with marginal increases of residential density. In contrast, low overall residential densities cause a large increment on walking outputs with marginal increase of residential density and employment center distribution. Further research must be done on the characterization of the these density gradients and employment center distribution to capture a more precise effect of activity density in walking behavior.