Mobility and Urban Structure:
A Case Study of Four Asian Capital Cities

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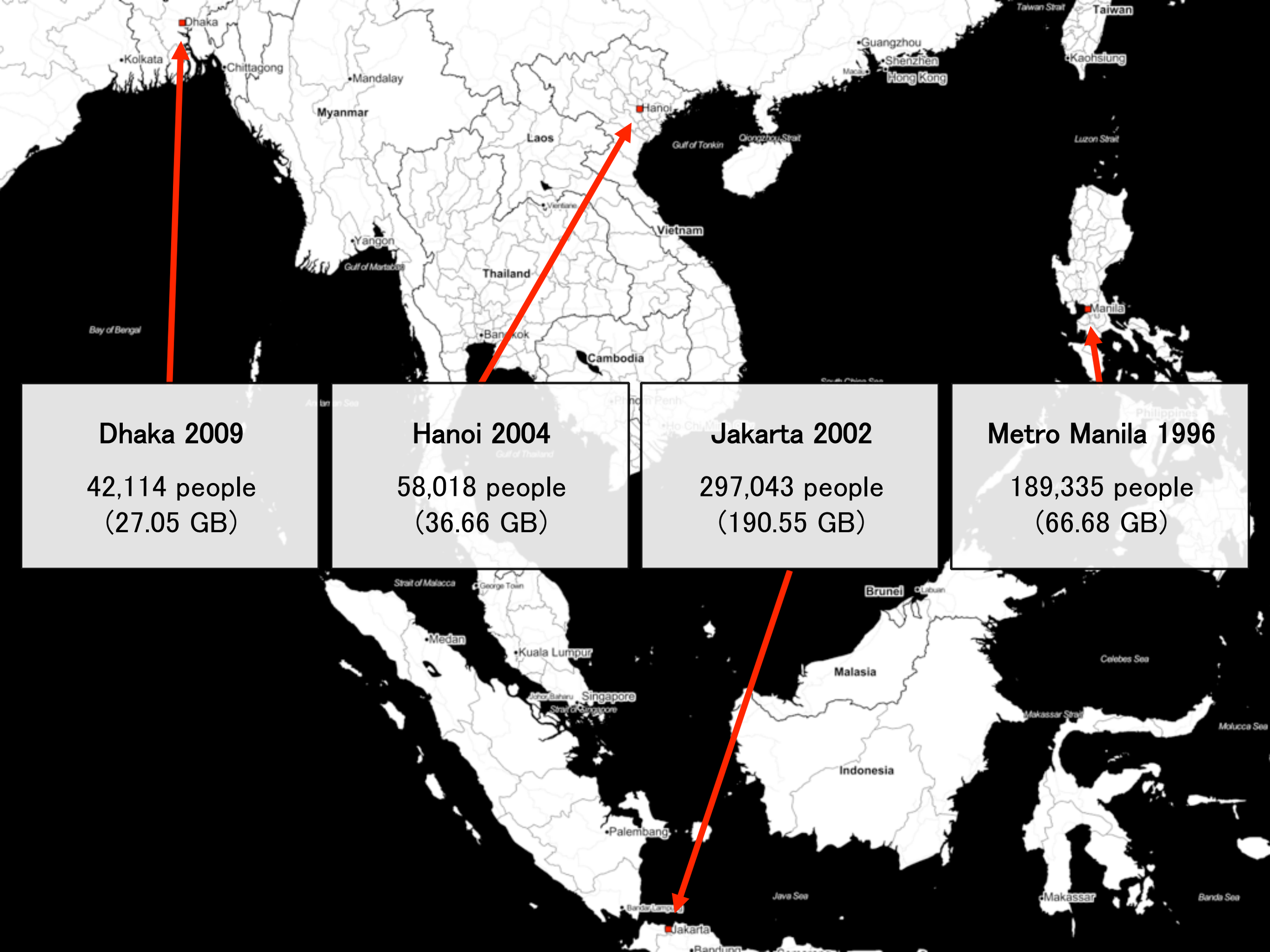


Dhaka 2009	Hanoi 2004	Jakarta 2002	Metro Manila 1996
42,114 people (27.05 GB)	58,018 people (36.66 GB)	297,043 people (190.55 GB)	189,335 people (66.68 GB)

Modes of Transportation

Dhaka: CNG / mishuk

Hanoi: Cyclo

Hanoi: Xe om

Jakarta: Bejaj

Jakarta: Becak

Jakarta: Ojek

Jakarta: Omprengan

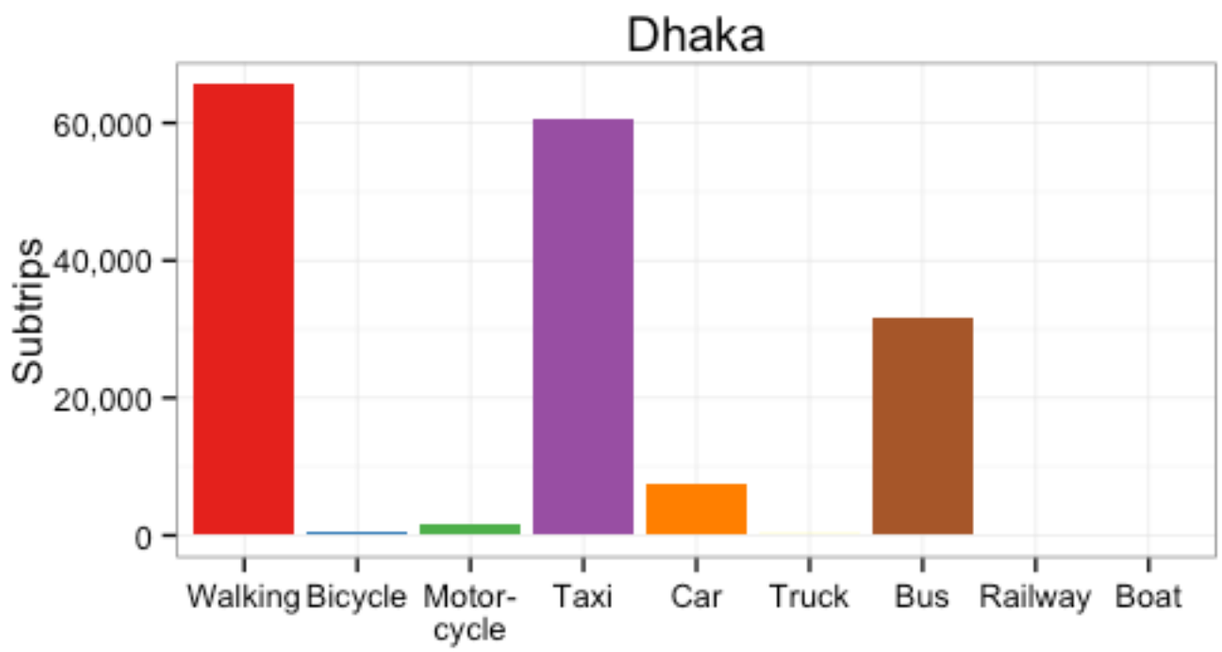
Manila: Pedicab

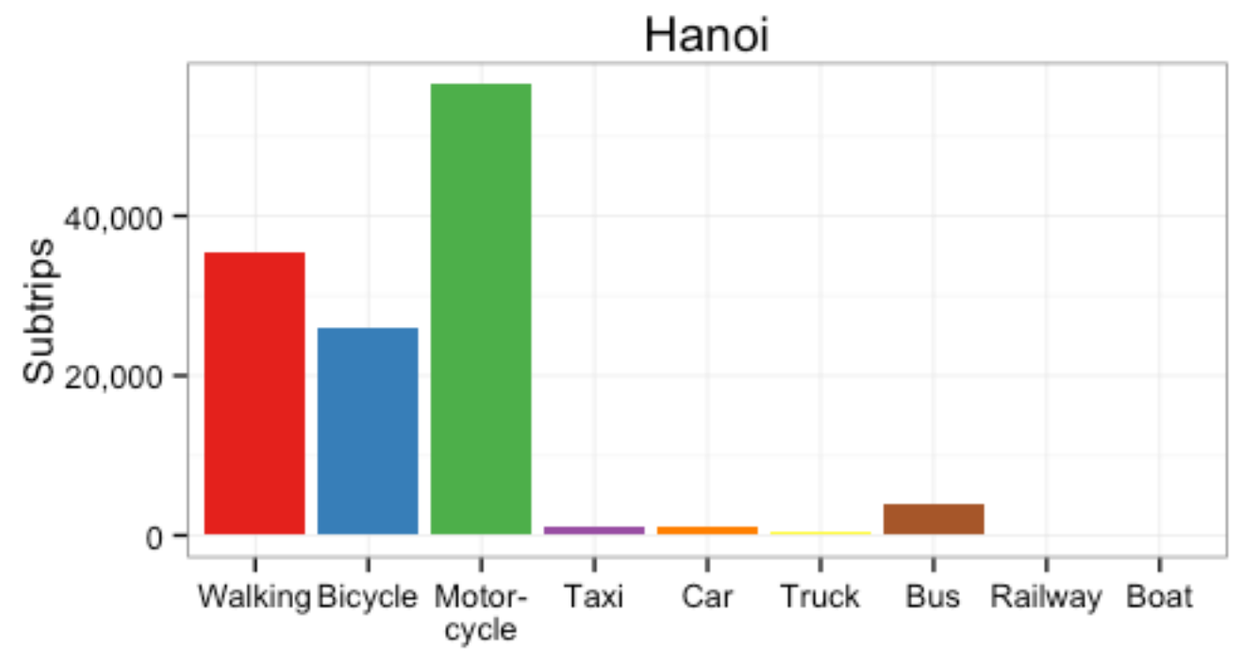
Jakarta: Kijang

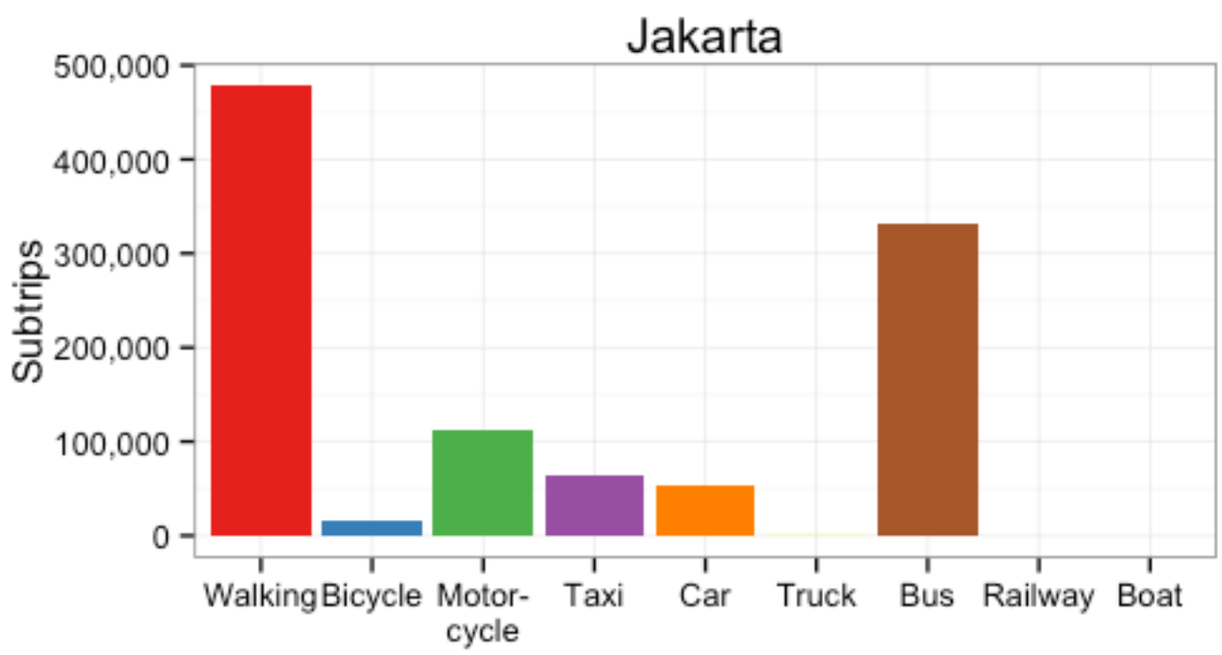
Jakarta: Mini cab

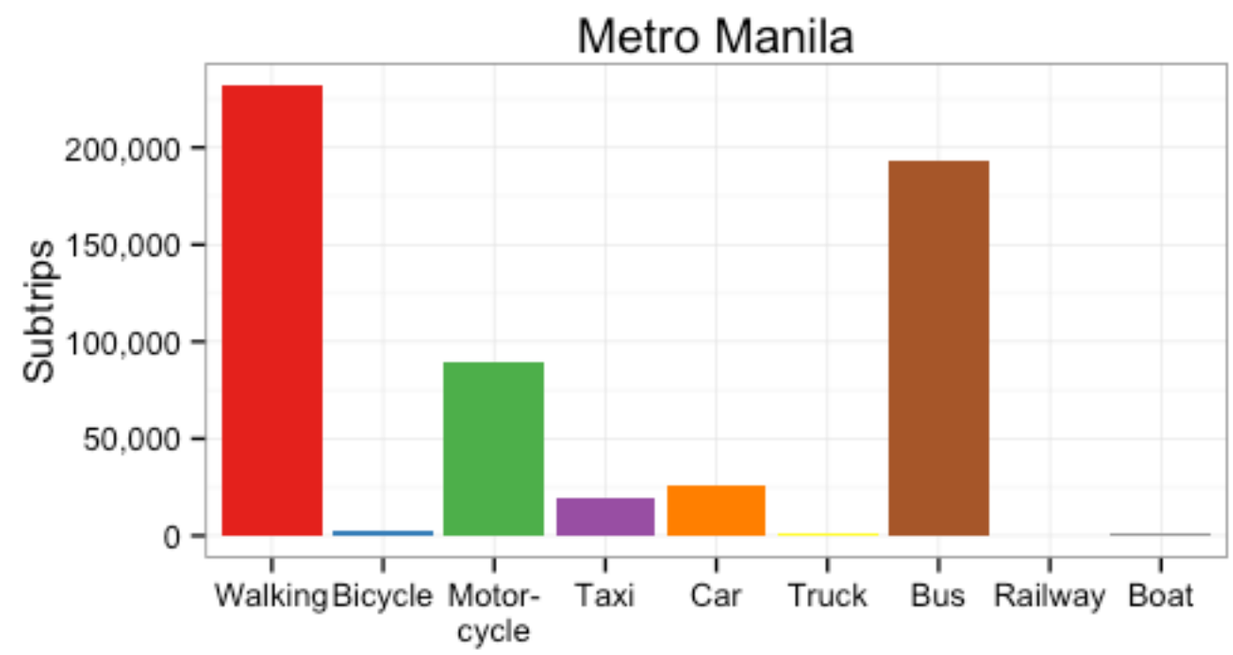
Manila: Jeepney

Subtrips per Mode of Transportation

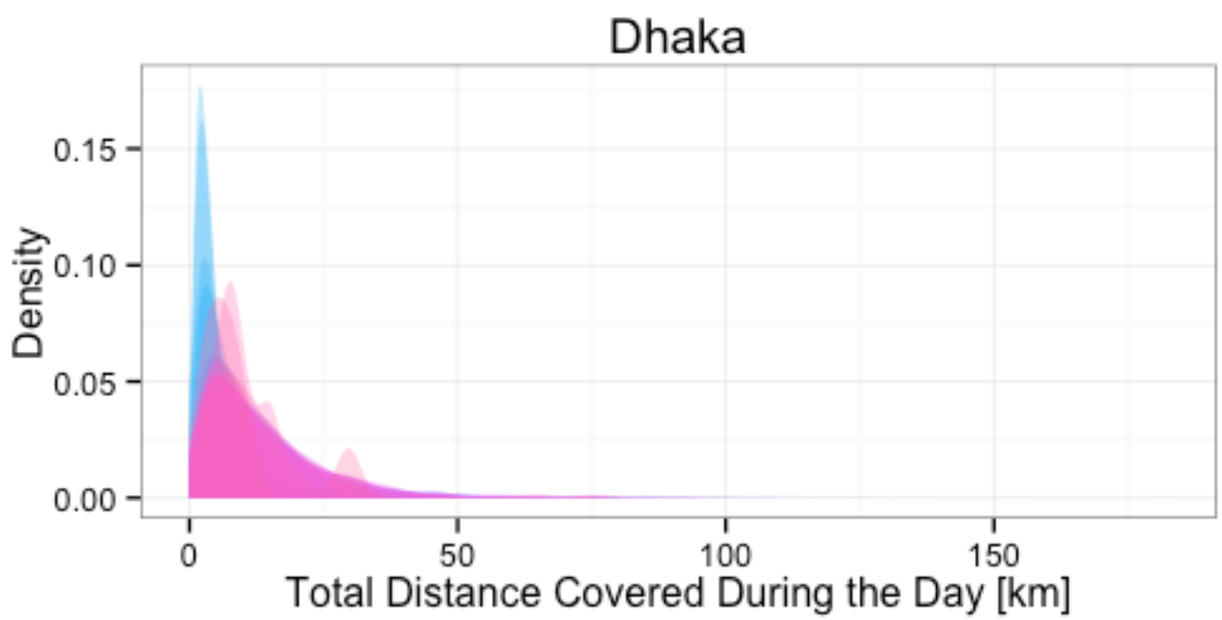


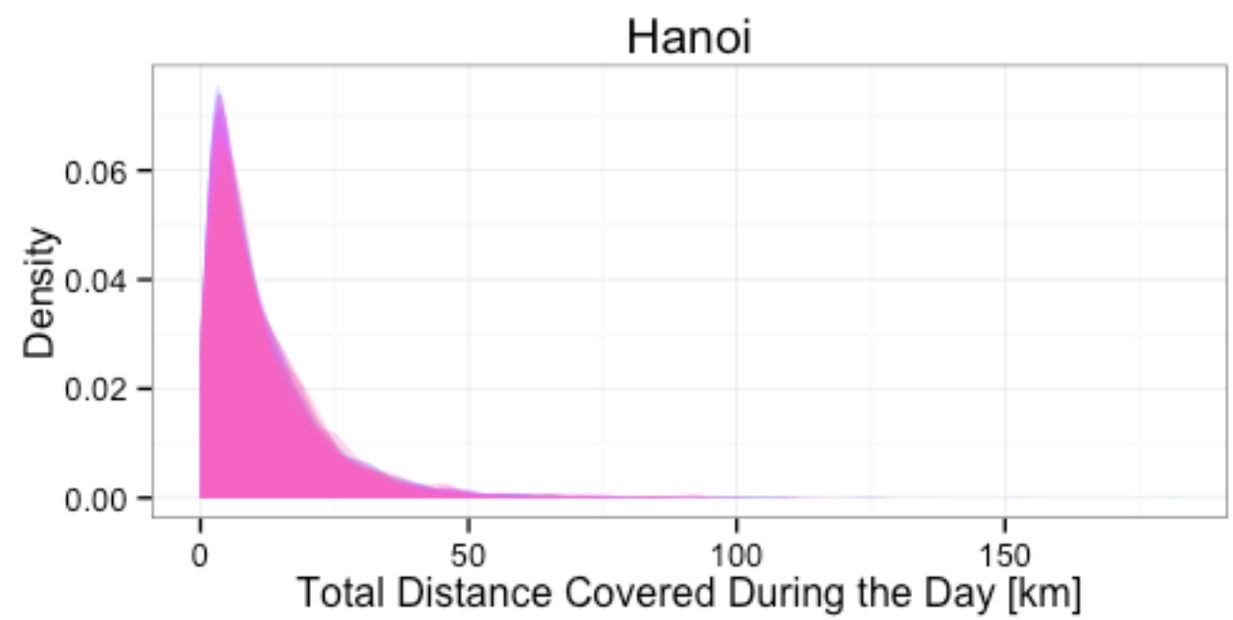


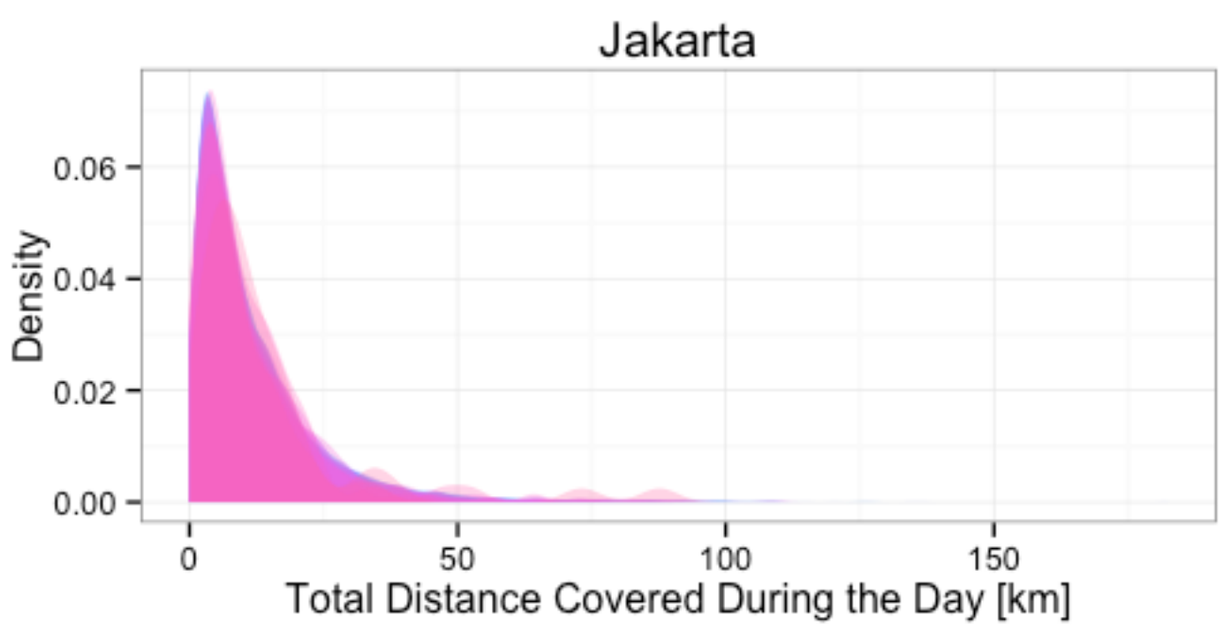


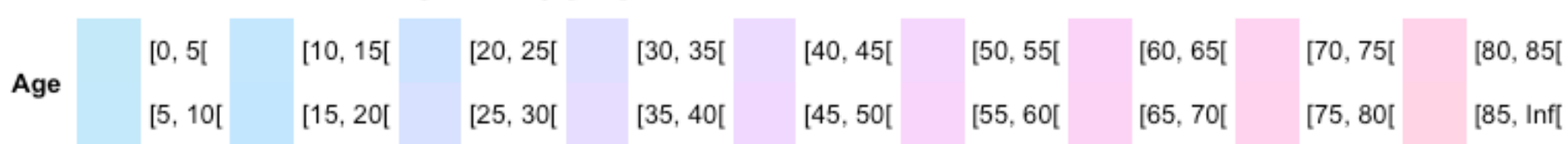


Total Distance Traveled per Age Group

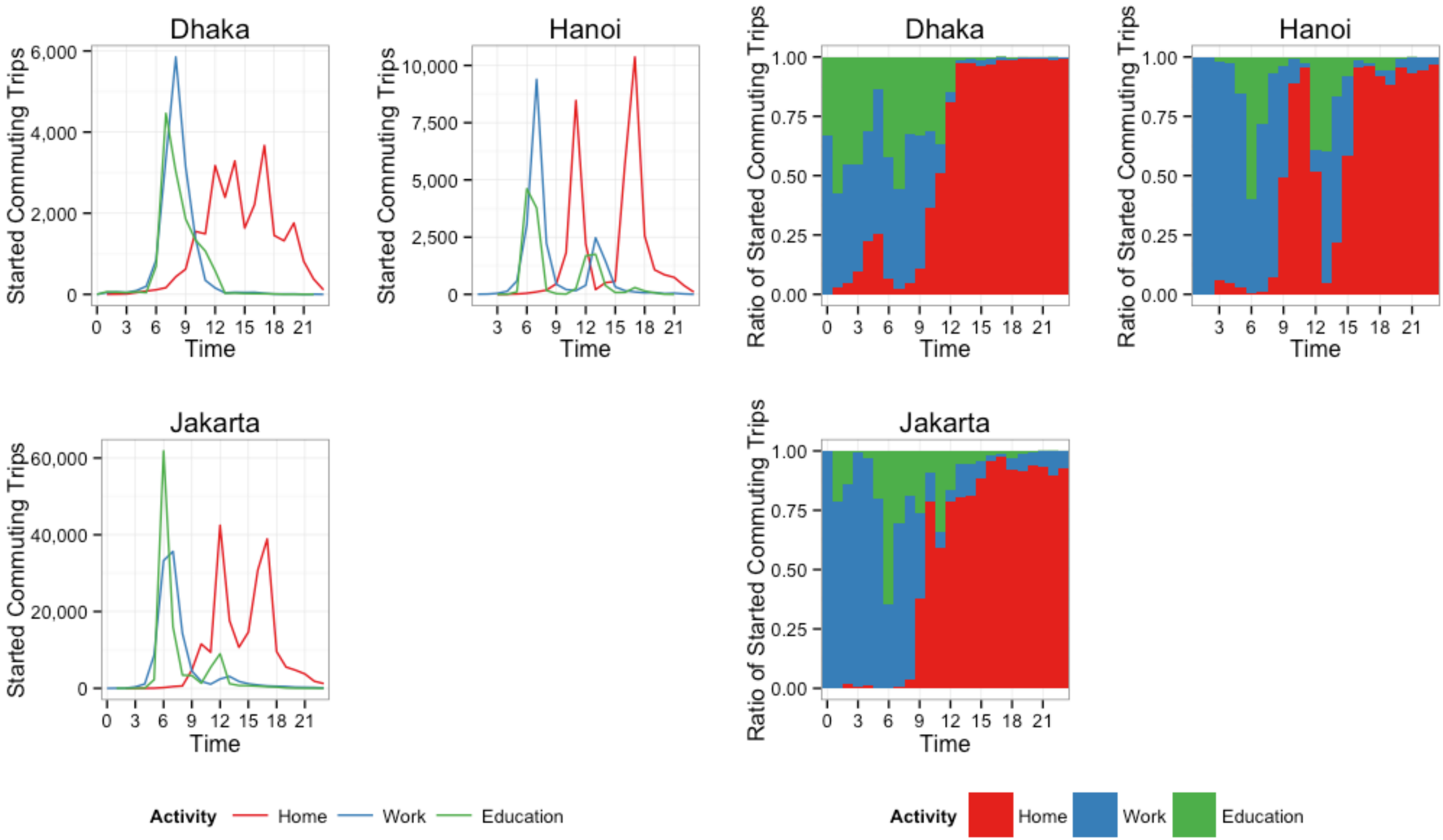








Commuting Trips Started per Hour



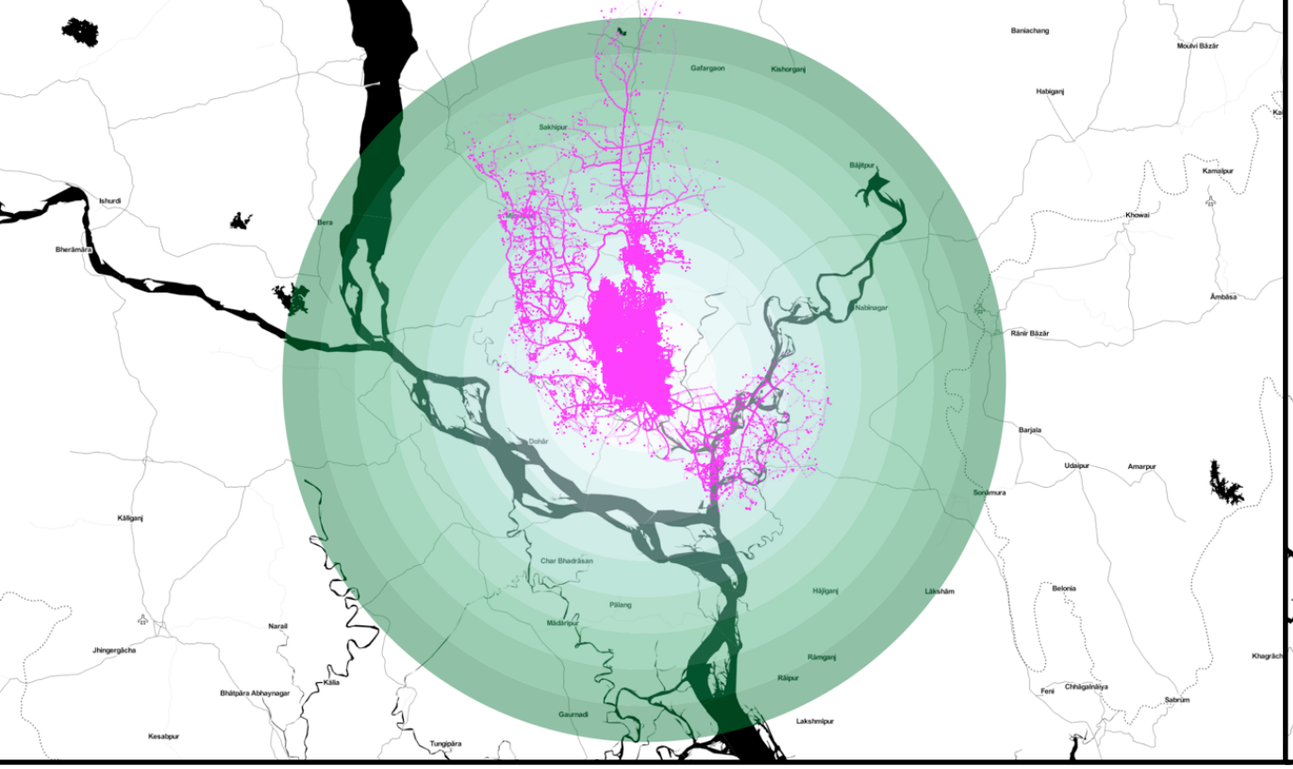
Structure of Commuting Trips

Dhaka		Mean distance	Mean duration	Mean subtrips
All	00:00 – 11:59	4.4 km	34 min.	1.6
	12:00 – 23:59	4.8 km	40 min.	1.6
Male	00:00 – 11:59	4.8 km	36 min.	1.6
	12:00 – 23:59	5.2 km	42 min.	1.6
Female	00:00 – 11:59	3.6 km	30 min.	1.4
	12:00 – 23:59	4.0 km	37 min.	1.5

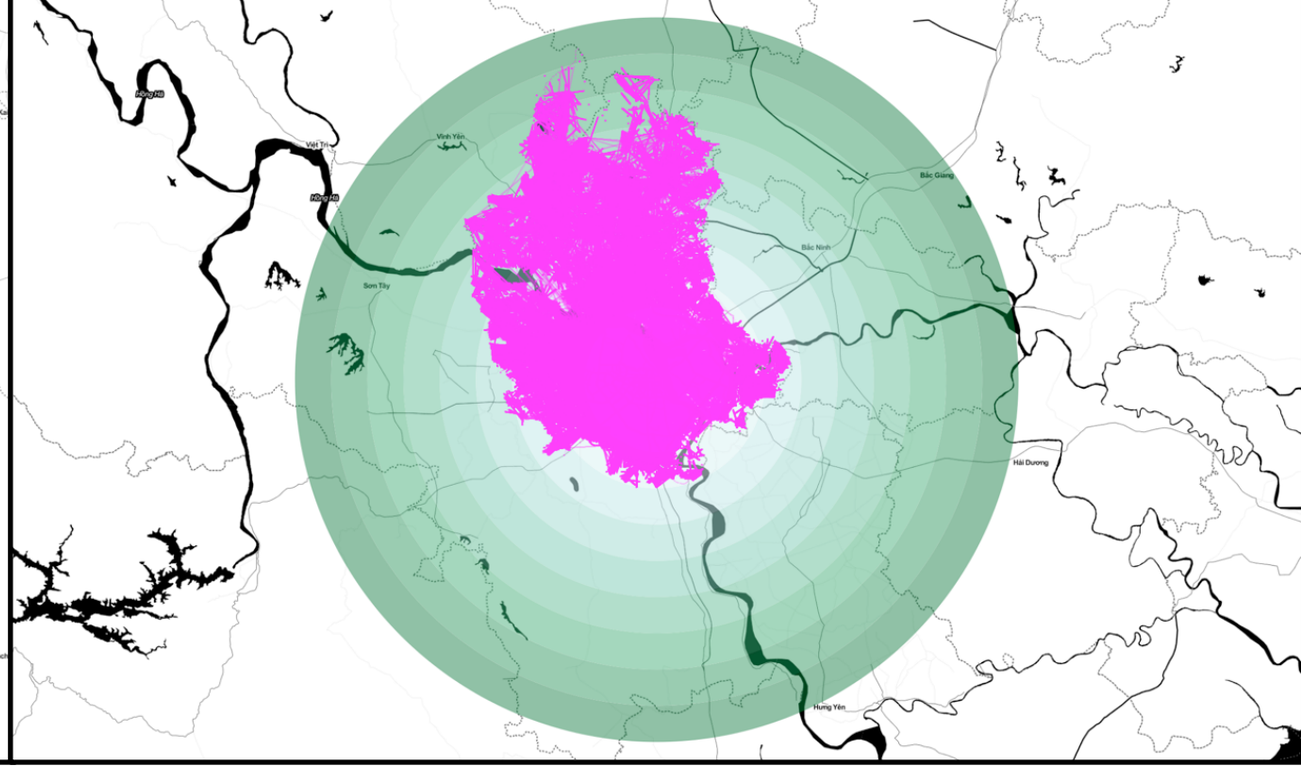
Hanoi		Mean distance	Mean duration	Mean subtrips
All	00:00 – 11:59	4.3 km	19 min.	1.0
	12:00 – 23:59	4.3 km	20 min.	1.0
Male	00:00 – 11:59	4.6 km	20 min.	1.0
	12:00 – 23:59	4.6 km	21 min.	1.0
Female	00:00 – 11:59	4.0 km	19 min.	1.0
	12:00 – 23:59	4.0 km	20 min.	1.0

Jakarta		Mean distance	Mean duration	Mean subtrips
All	00:00 – 11:59	9.8 km	34 min.	1.5
	12:00 – 23:59	22.0 km	37 min.	1.6
Male	00:00 – 11:59	10.0 km	35 min.	1.5
	12:00 – 23:59	22.5 km	38 min.	1.5
Female	00:00 – 11:59	9.5 km	32 min.	1.5
	12:00 – 23:59	22.0 km	36 min.	1.6

Metro Manila		Mean distance	Mean duration	Mean subtrips
All	00:00 – 11:59			
	12:00 – 23:59			
Male	00:00 – 11:59			
	12:00 – 23:59			
Female	00:00 – 11:59			
	12:00 – 23:59			



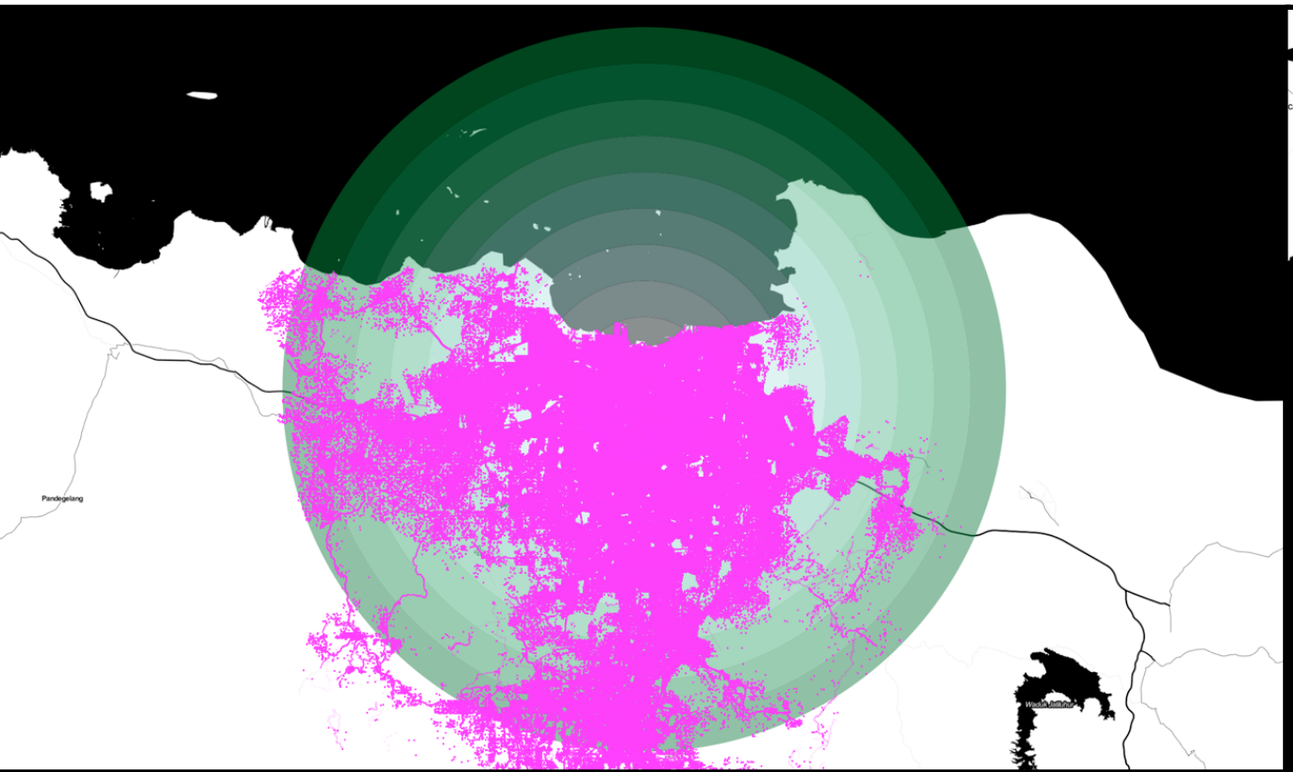
Dhaka



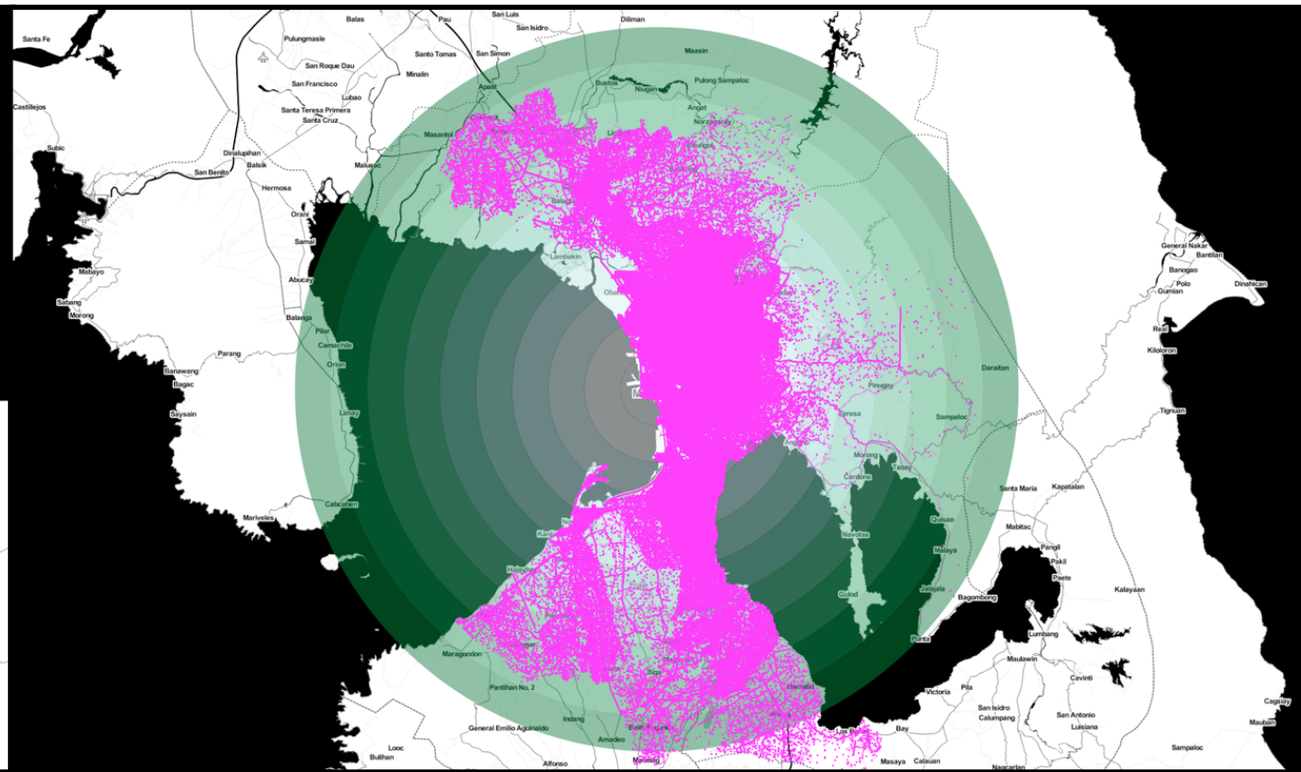
Hanoi

Concentric ring buffers
0–50 km in 5 km distance

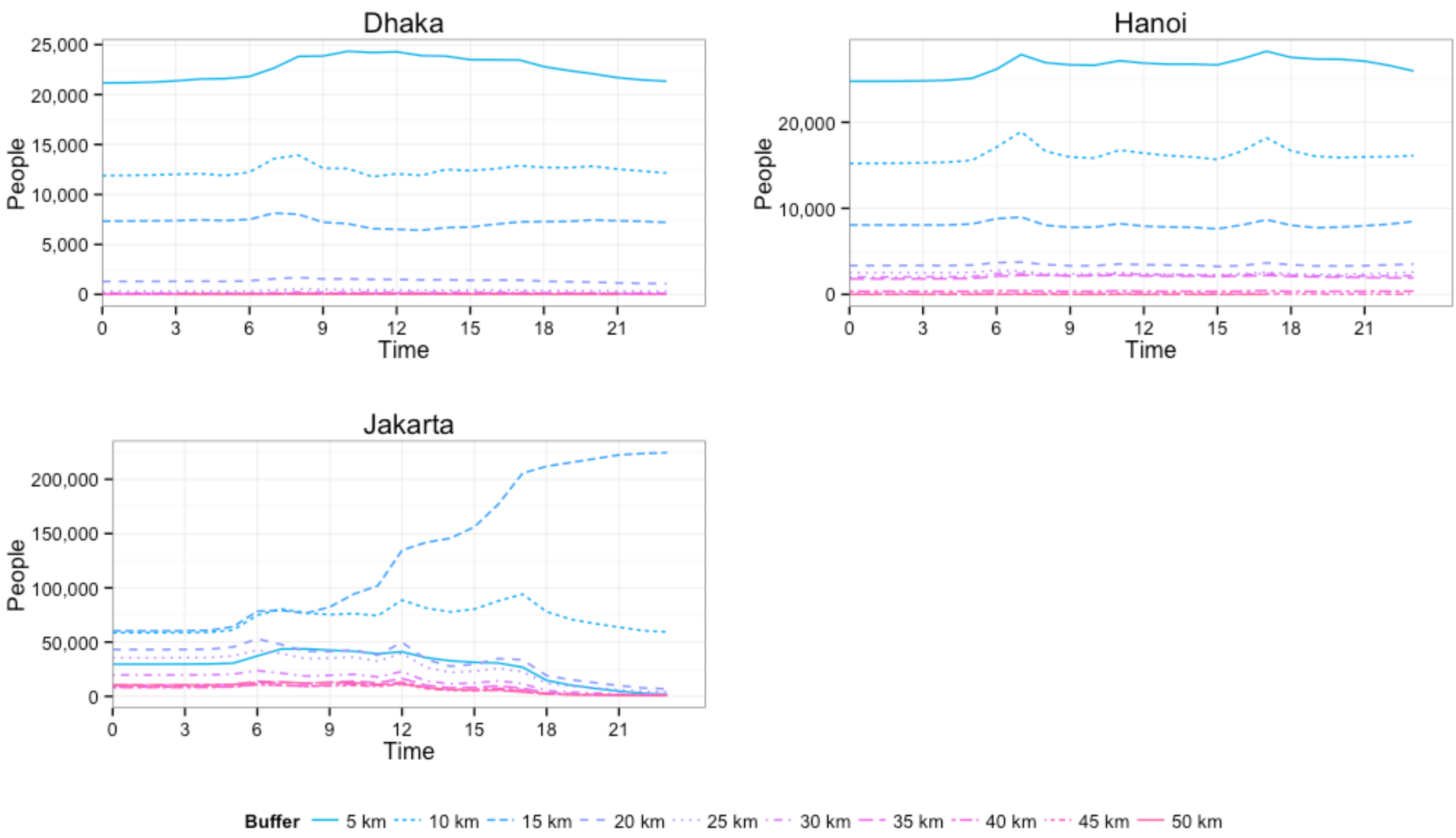
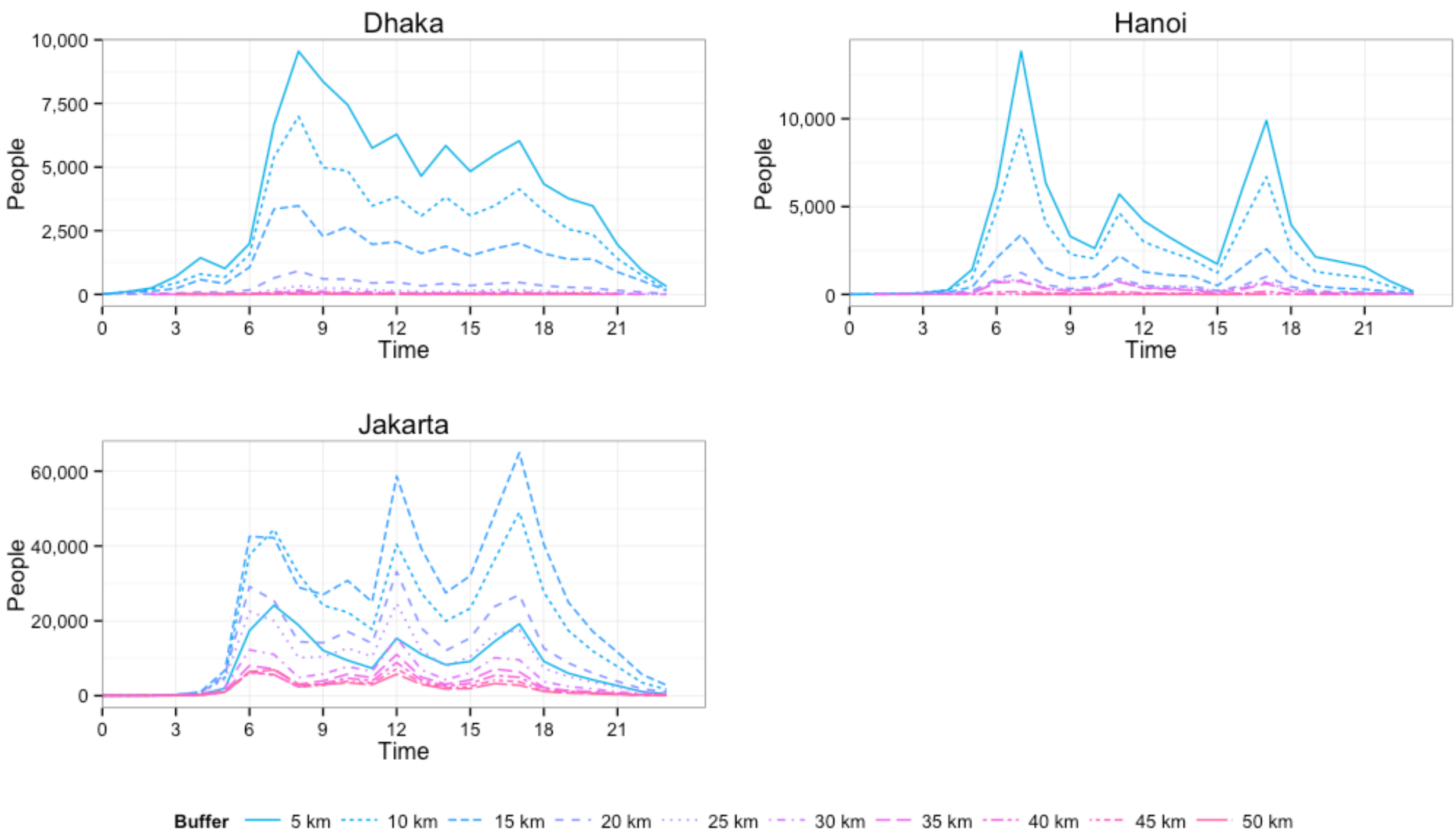
Jakarta



Metro Manila



Population Distribution per Hour



Mobile Population Distribution per Hour