

CITIES, HEALTH AND WELL-BEING

NOVEMBER 2011

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Transport Equity; Istanbul , São Paulo and Mumbai



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TRANSPORT EQUITY

Sao Paulo, Istanbul and Mumbai

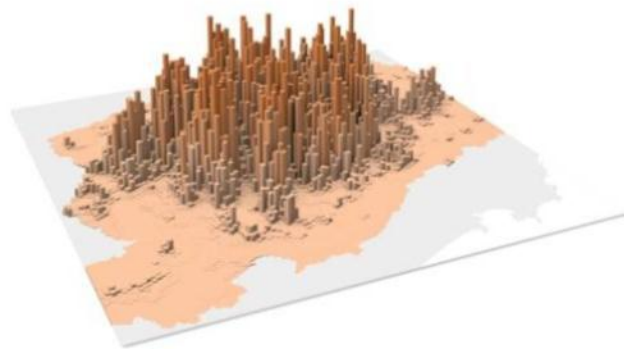


*Urban Age Health and Well-being Conference
Hong Kong, 17 November 2011*

*Philipp Rode, LSE Cities / Urban Age Programme
London School of Economics and Political Science*



RESIDENTIAL DENSITY



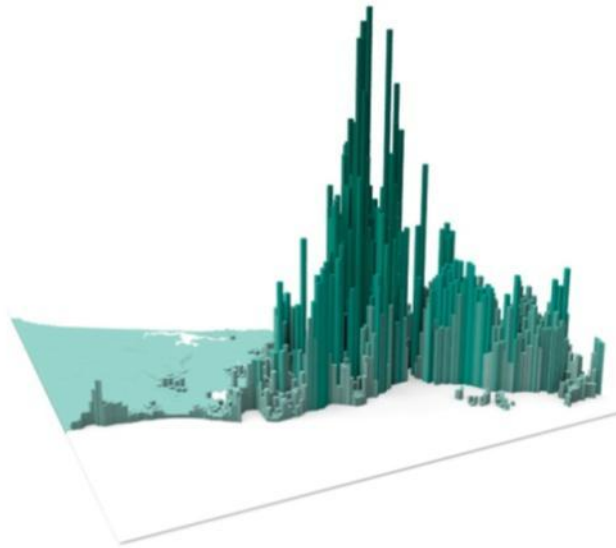
SAO PAULO

10,376

Avg. density central area
of 10 km radius [pers./sqkm]

29,704

Max. Density [pers./sqkm]



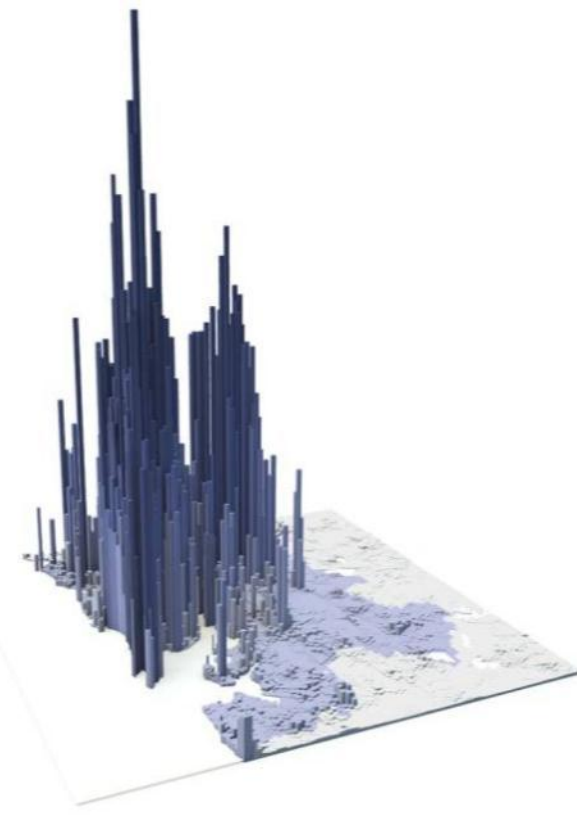
ISTANBUL

20,128

Avg. density central area
of 10 km radius [pers./sqkm]

77,267

Max. Density [pers./sqkm]



MUMBAI

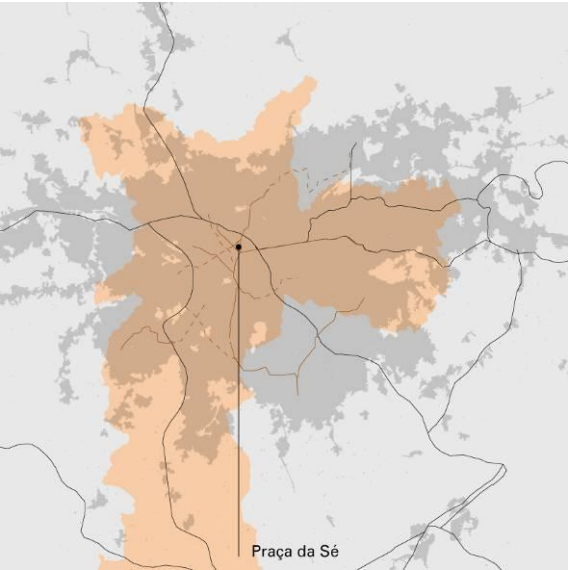
25,316

Avg. density central area
of 10 km radius [pers./sqkm]

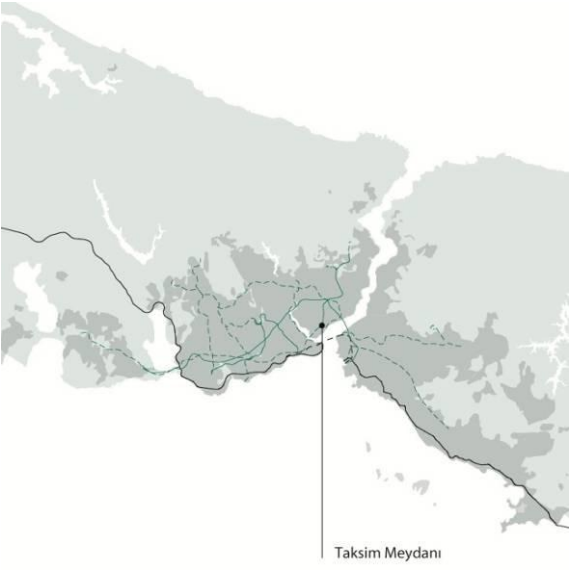
121,312

Max. Density [pers./sqkm]

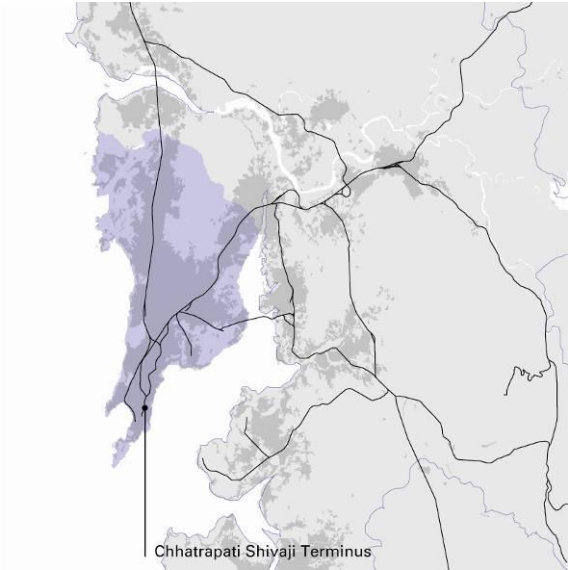
RAIL TRANSPORT INFRASTRUCTURE AND MOBILITY PATTERNS



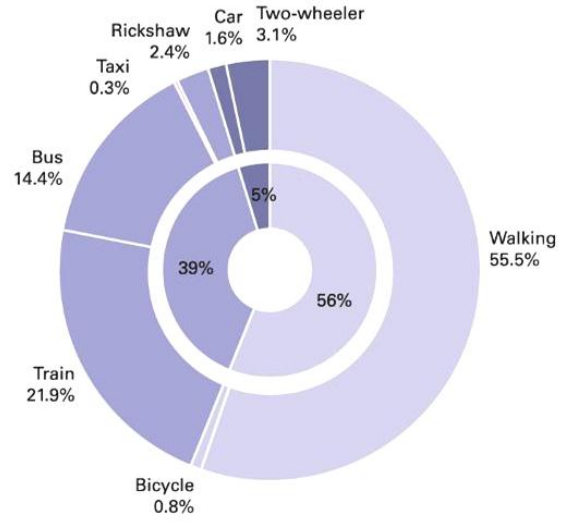
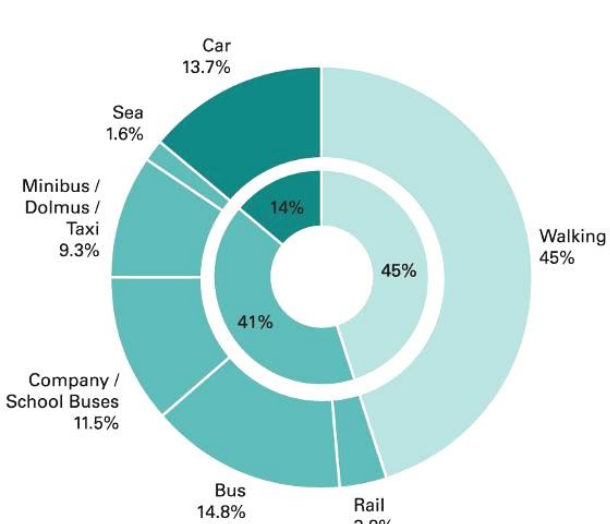
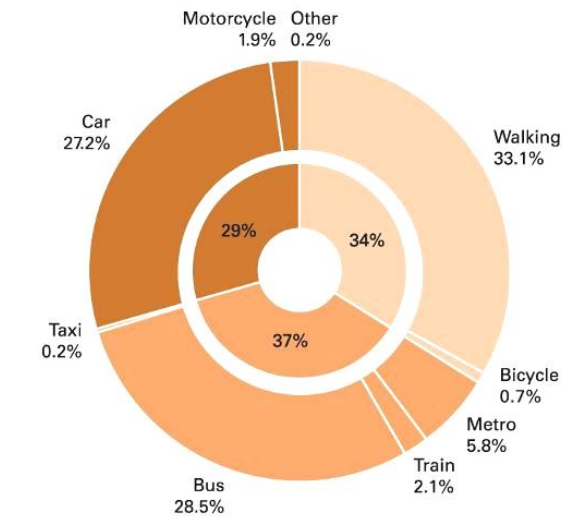
SAO PAULO



ISTANBUL



MUMBAI



URBAN AGE SURVEY BY LSE CITIES

- **Household Surveys** across metropolitan region commissioned by LSE Cities and conducted by IPOS MORI covering key urban policy areas

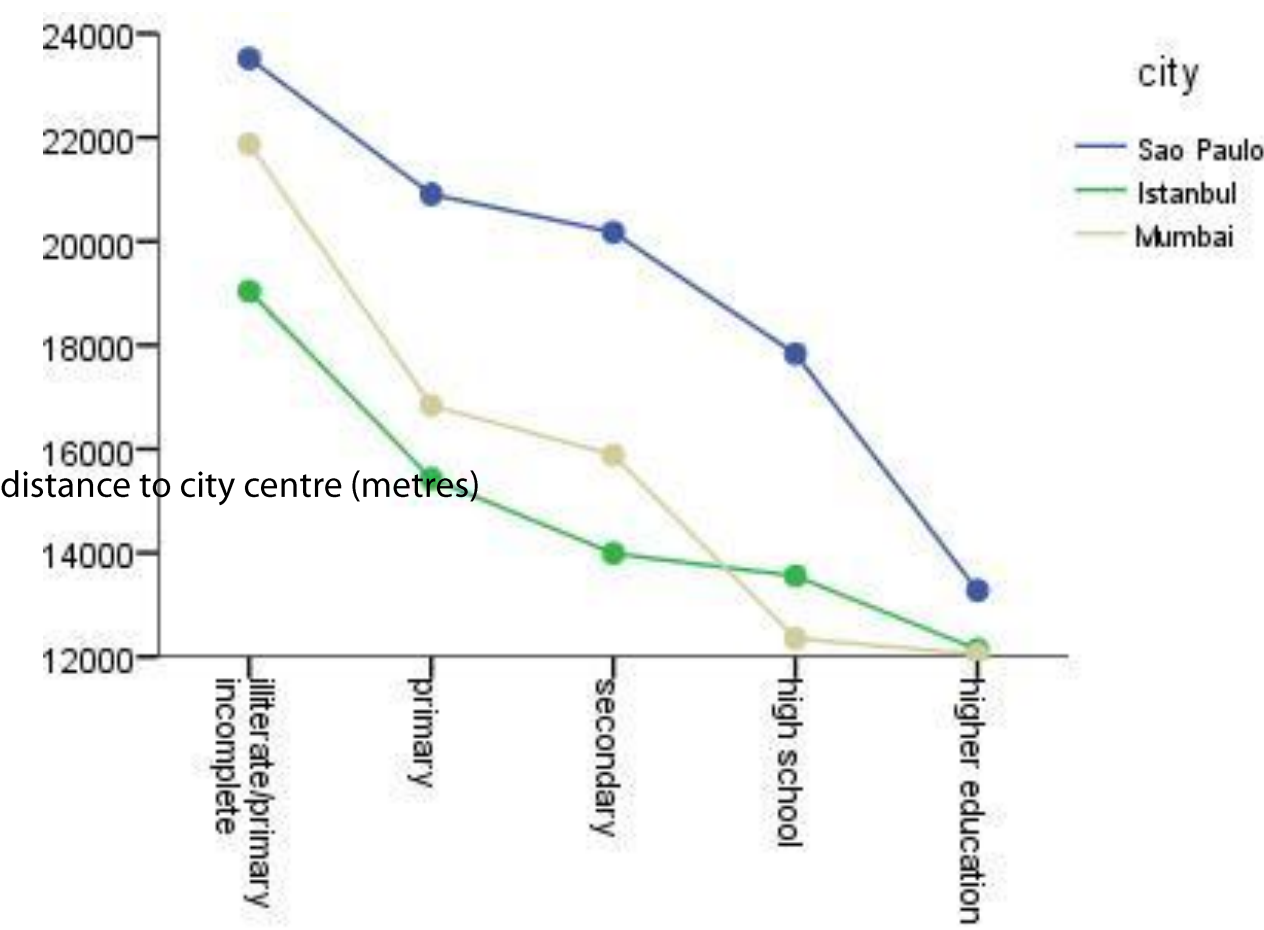
city	year	sample size
Sao Paulo	2008	1,000
Istanbul	2009	1,013
Mumbai	2010	1,001

- **Transport Section**

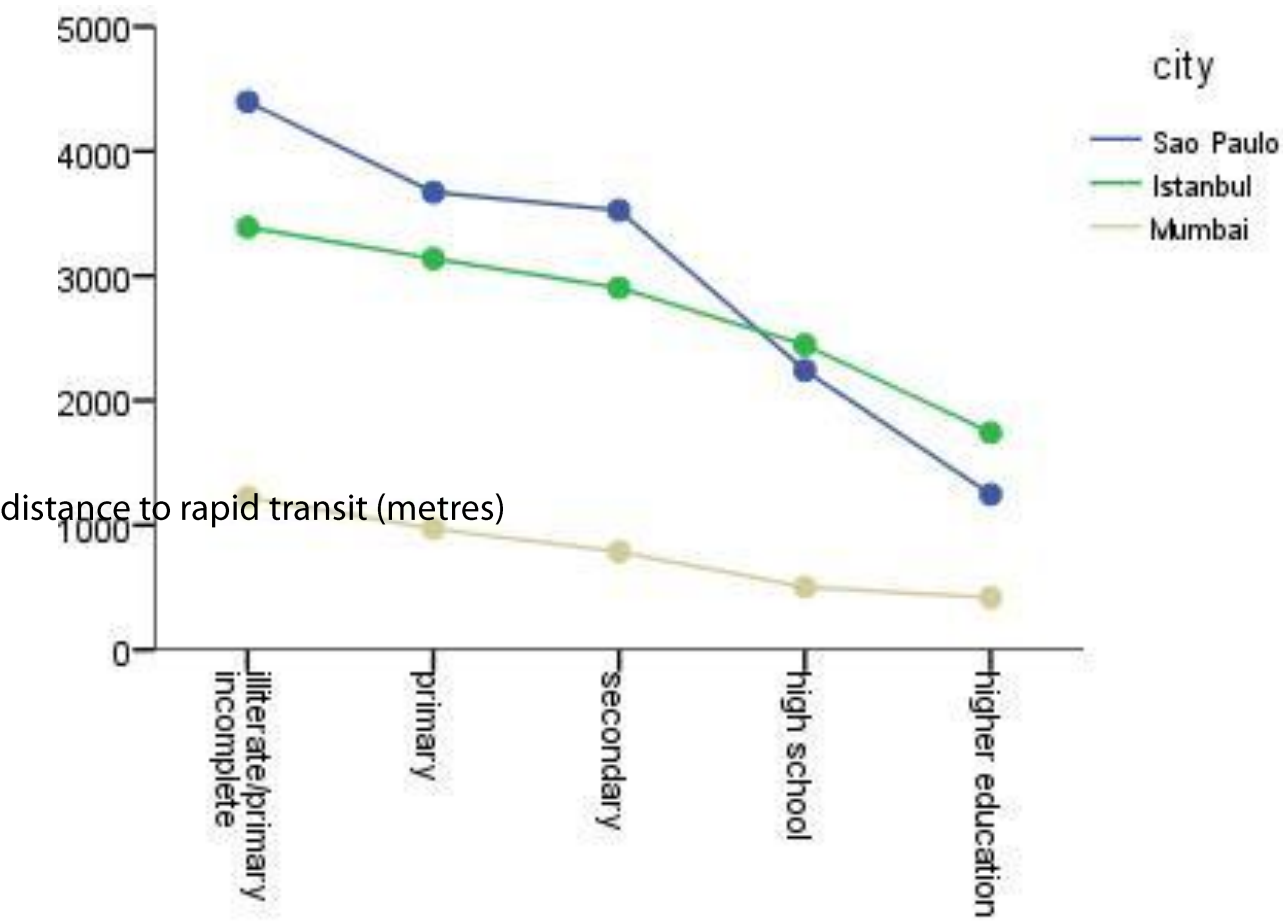
general transport patterns	main daily trip information
travel time to various services	trip duration
access to car	modal shares
location	trip purpose

- **Education levels** were used as best proxy for socio-economic status across the three cities

EDUCATION LEVEL AND DISTANCE TO CITY CENTRE



EDUCATION LEVEL AND DISTANCE TO RAPID TRANSIT NETWORK



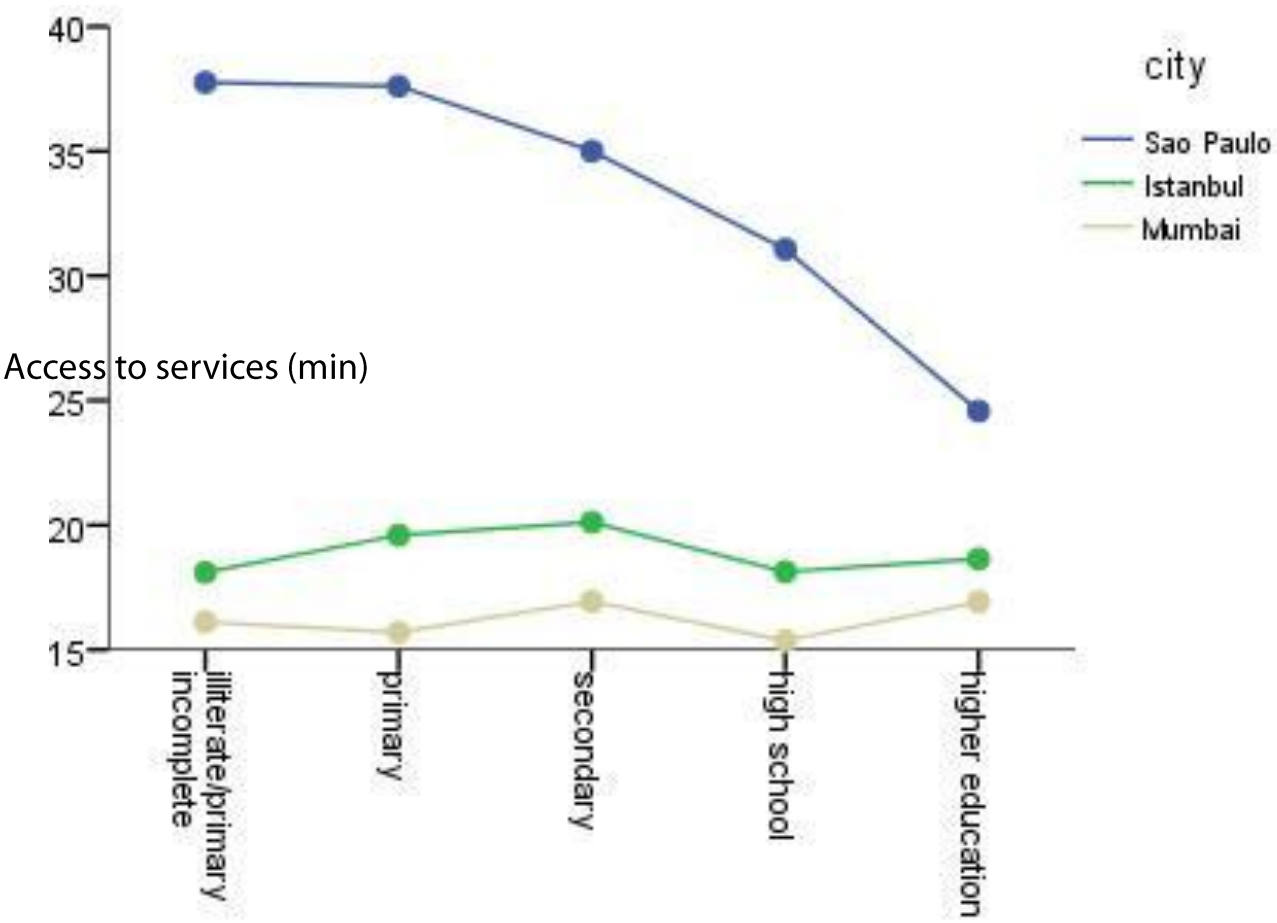


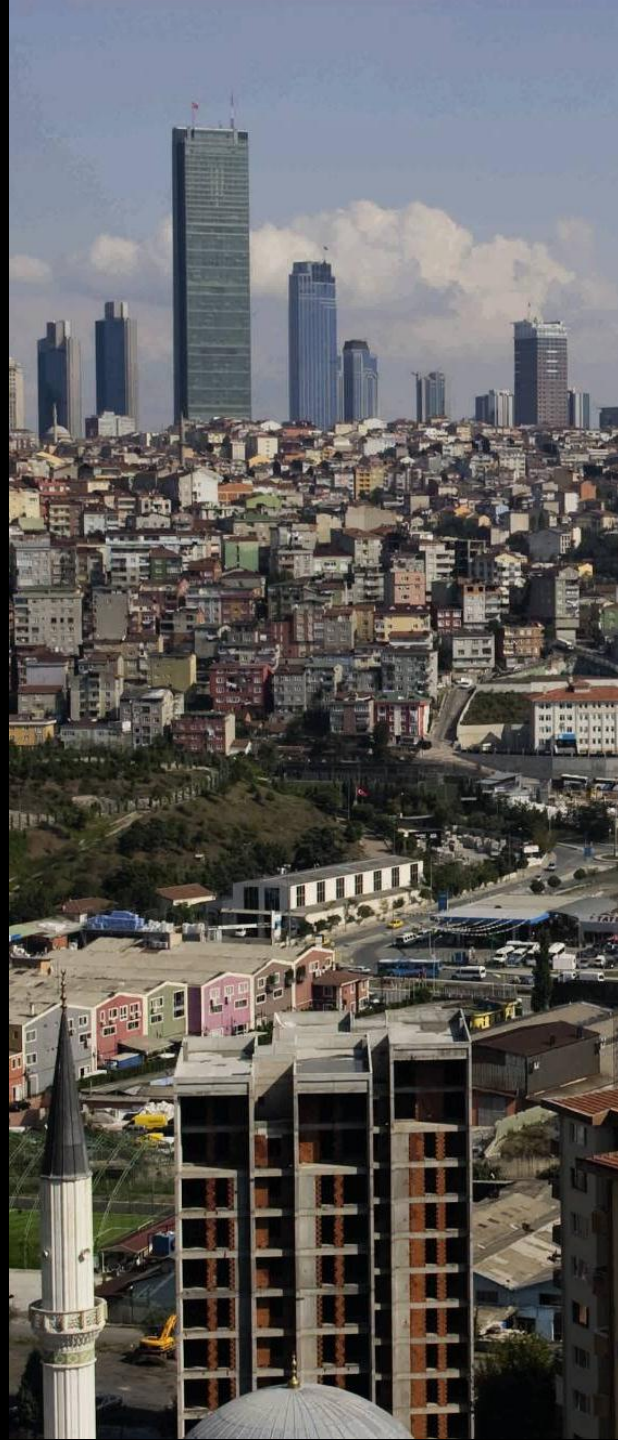
DIMENSION OF ACCESSIBILITY

1. Cost
2. Time
3. Reliability
4. Service frequency
5. Physical comfort
6. Safety
7. Security
8. Convenience



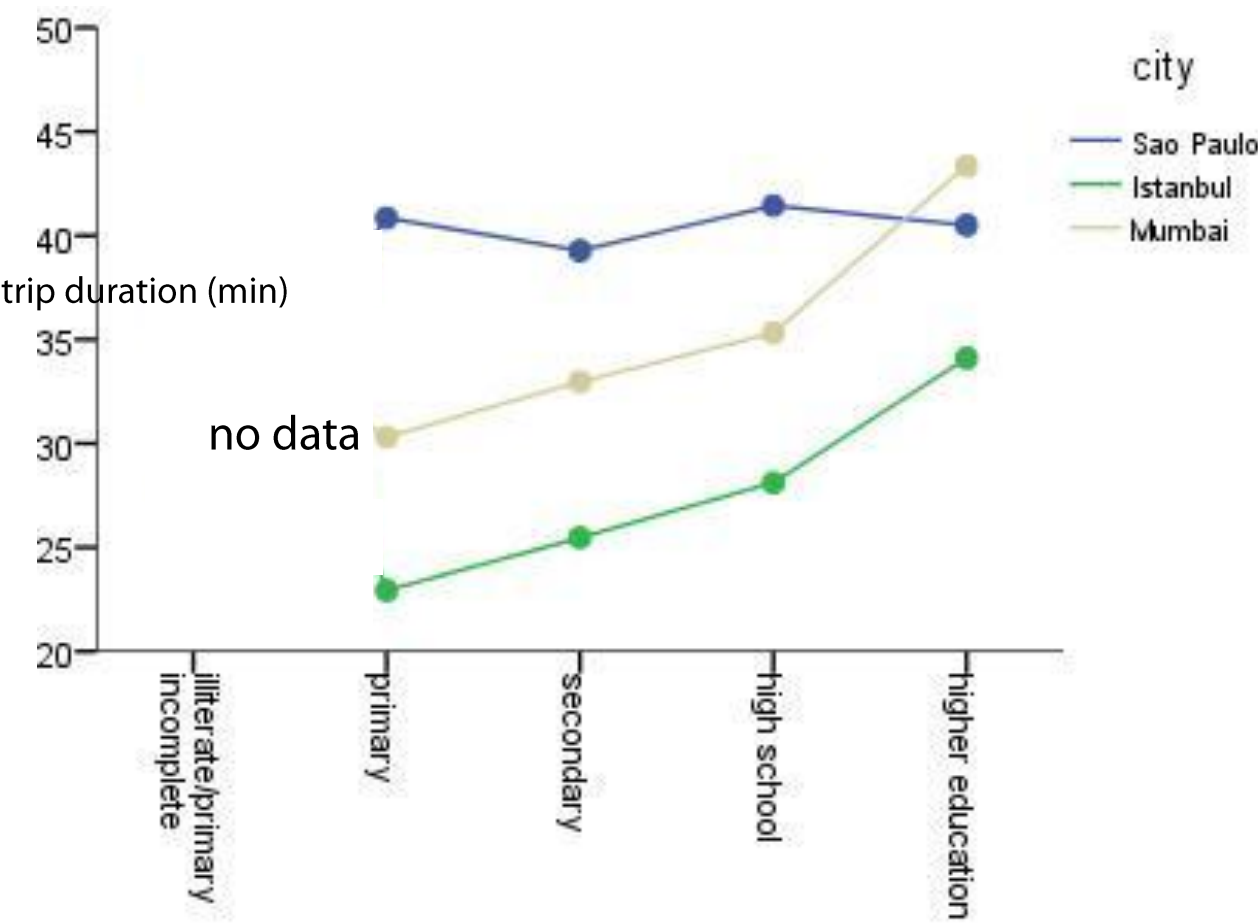
EDUCATION LEVEL AND ACCESS TO SERVICES





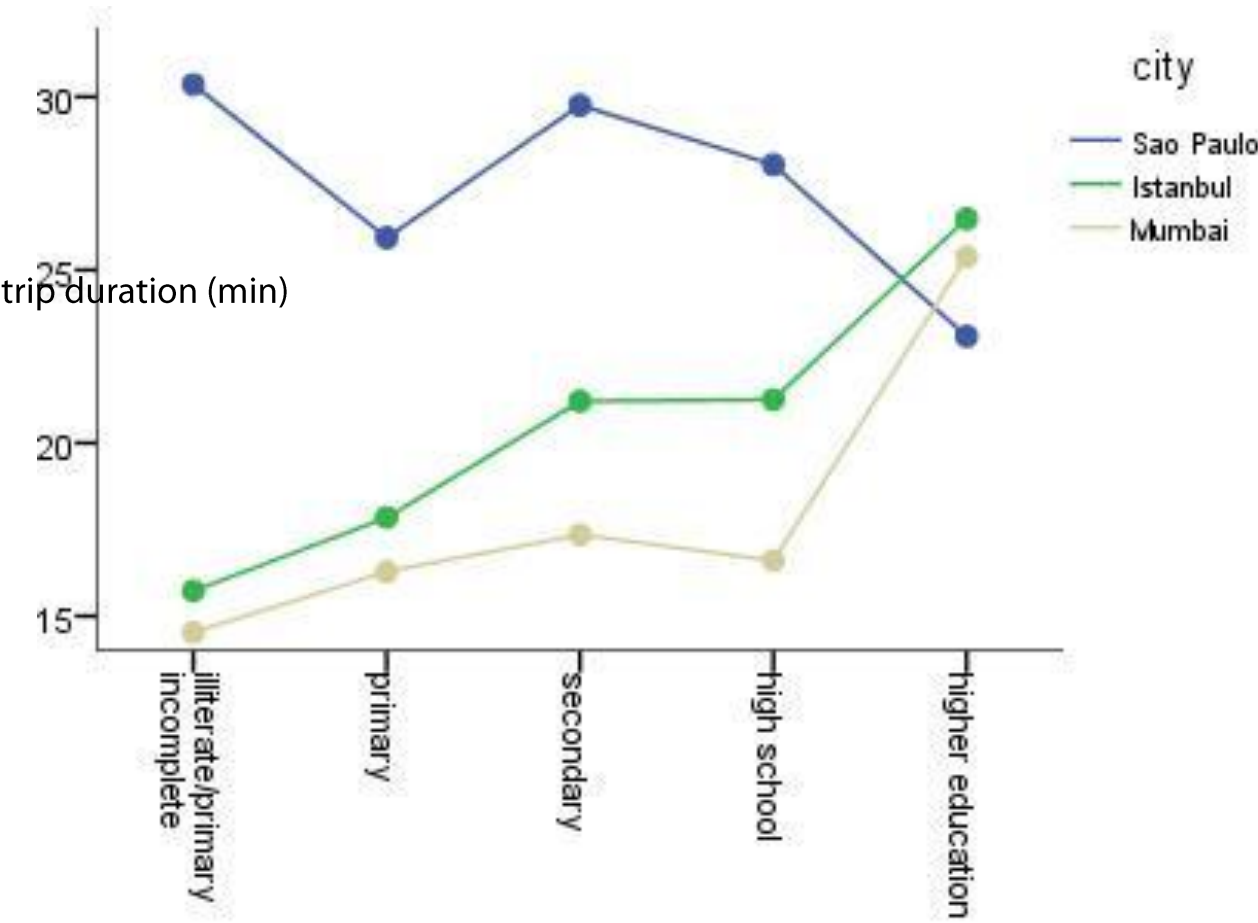
EDUCATION LEVEL AND TRIP DURATION

Work Trips

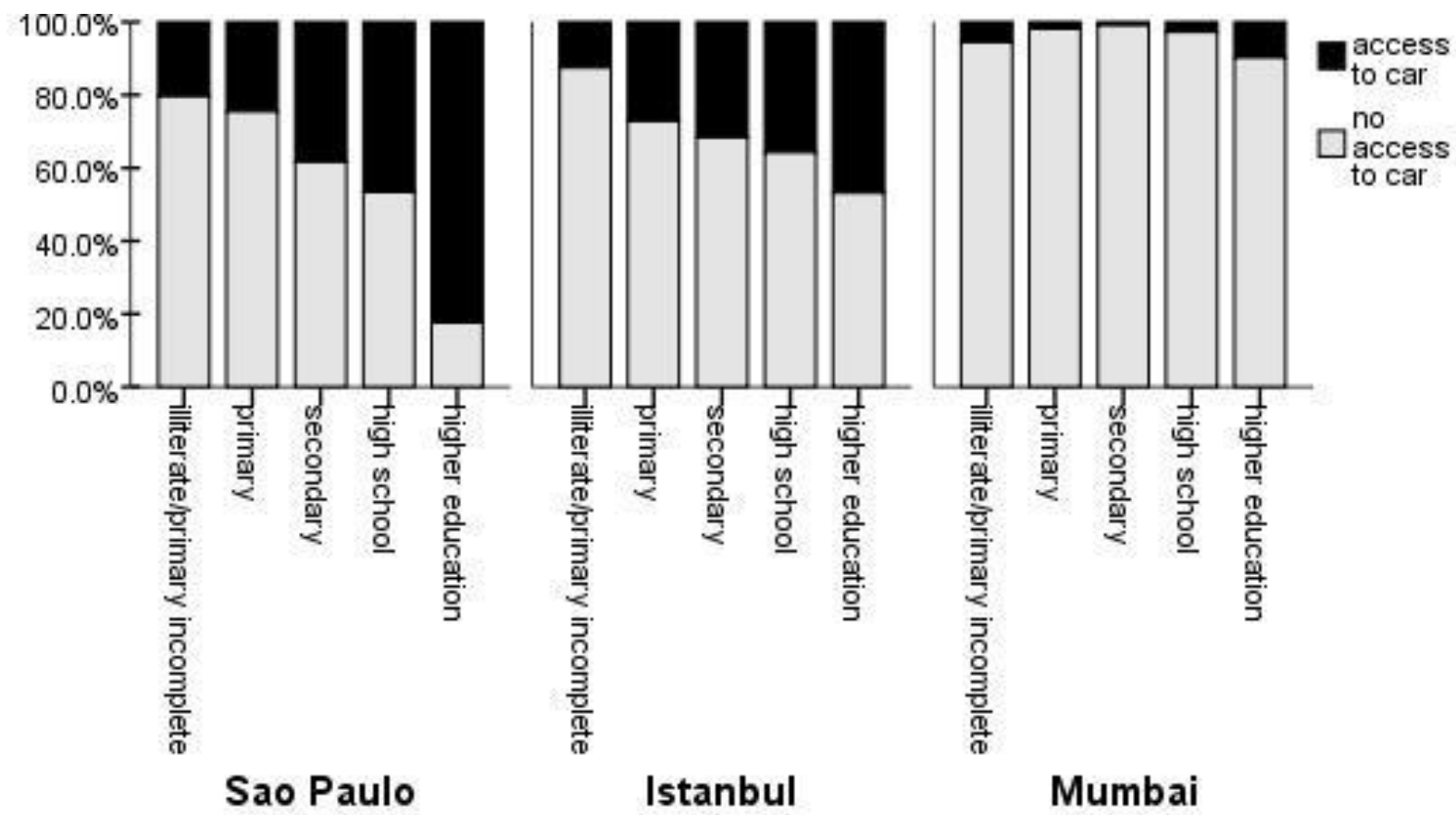


EDUCATION LEVEL AND TRIP DURATION

Non-Work Trips



EDUCATION LEVEL AND ACCESS TO CAR





CONCLUSION

- Mumbai is the “accessibility machine” compared to the other two cities
 - Unique access also for disadvantaged groups
 - Accessibility is based on density, mix use, linear character of the city with its great rail accessibility
 - BUT compromises exist elsewhere: Personal living space, housing quality and overcrowding of public transport.
- Sao Paulo is the least accessible city with the lowest transport equity
 - Low level of accessibility for the least well-off, re-enforcing its high income inequality
 - Informal, poorer developments mainly occur at the inaccessible fringes, far away from centres of work and often even public transport
- Istanbul sits somewhere between Mumbai and Sao Paulo, sharing more similarities with the former.
 - Hypothesis that Istanbul’s ‘consolidated informal development’ at relatively high density levels might represent the most inclusive form of urban development
 - Minimizing the trade-off between access and housing quality

