

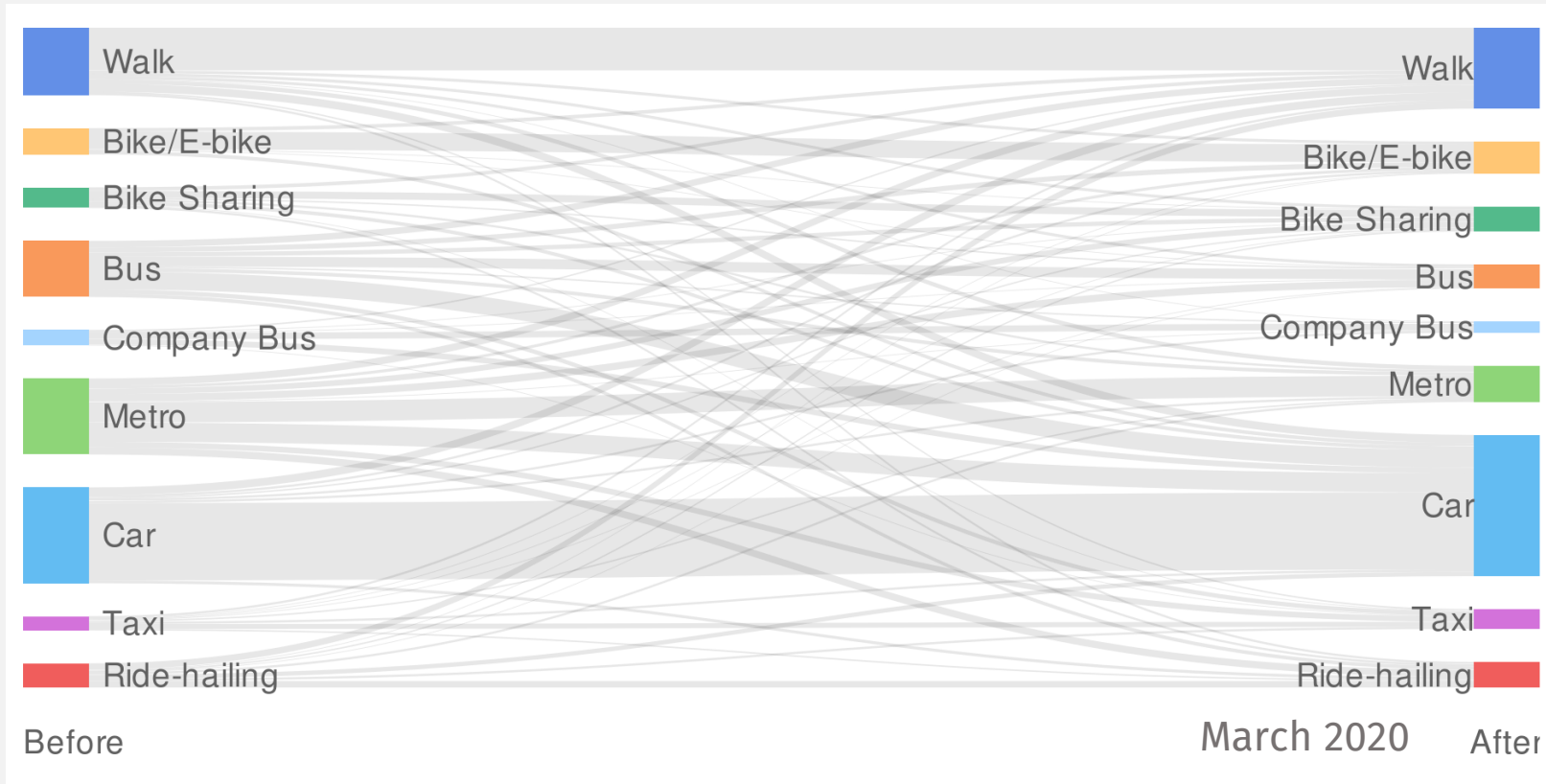


The Impact of Covid-19 Epidemic on Urban Traffic in China

Richard Liu, East Asia Director, ITDP

Richard.Liu@itdp.org

Travel Patterns Changed



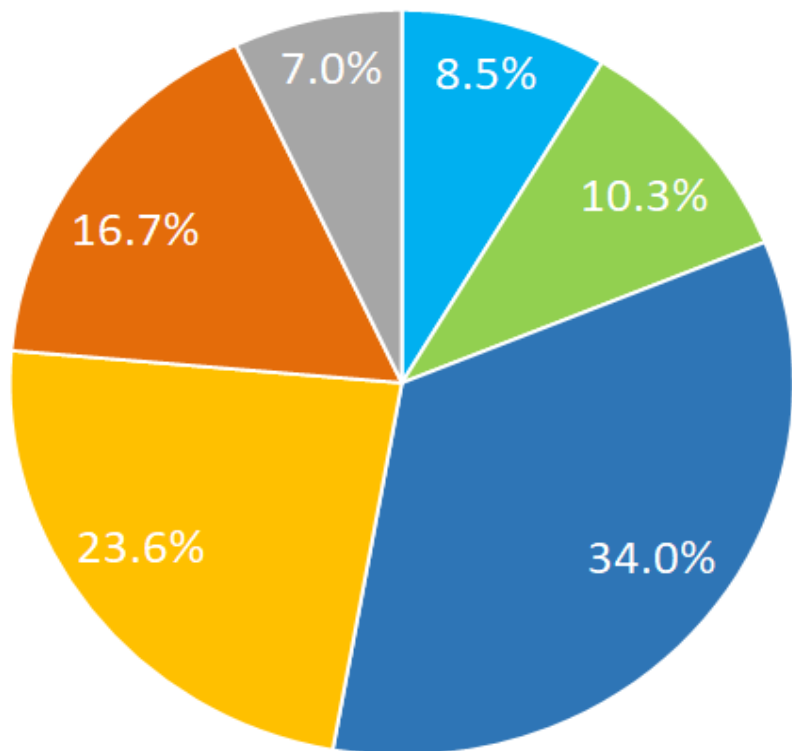
Source: ITDP China

Two rounds of survey conducted by ITDP in March and May 2020 showed that the mode share of public transit has been greatly reduced, metro ridership dropped from a previous mode share of 26% of trips in the city, to 14%(March) then rose back to 21%(May). Bus ridership went from a pre-Covid mode share of 17% down to 10%(March), then rose back to 12%(May).

Against this background, there is an increase on the number of people driving cars (36.8% to 40.1%, March). At the same time, walking and cycling have also increased slightly.

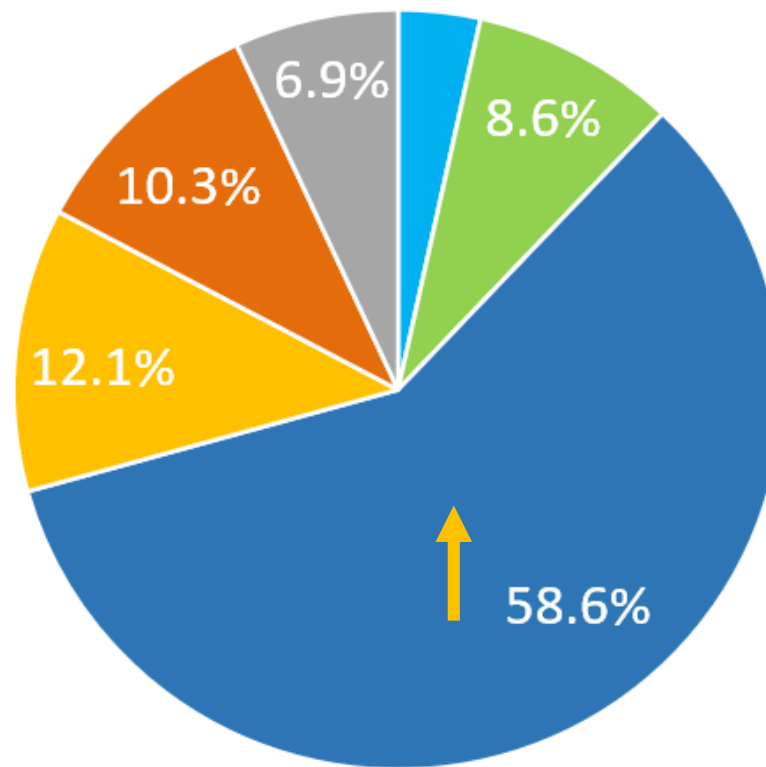
Travel Patterns Changed

The shift of transit users in March



- walking
- bike
- bus+subway
- private car
- taxi+TNCs
- not back to work yet

The shift of transit users in May



Source: ITDP China

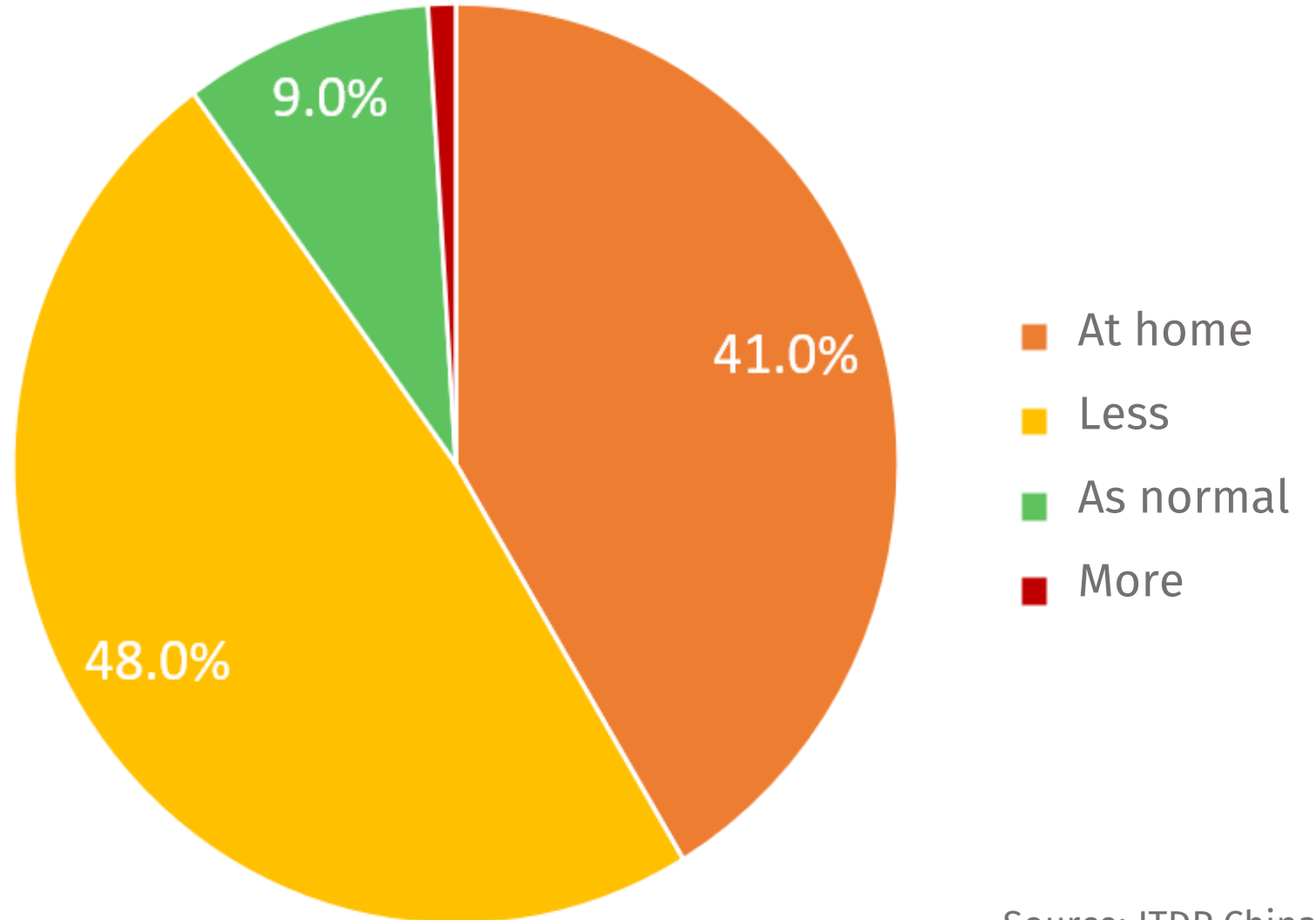
According to the ITDP survey, in March only 34% of transit users remain in their original mode of transport after returning to work, while 40% shift to motor vehicles (private cars, taxis, TNCs).

A new survey in May showed that the proportion of public transport increase to 58% in May from 34% in March.

Travel Patterns Changed

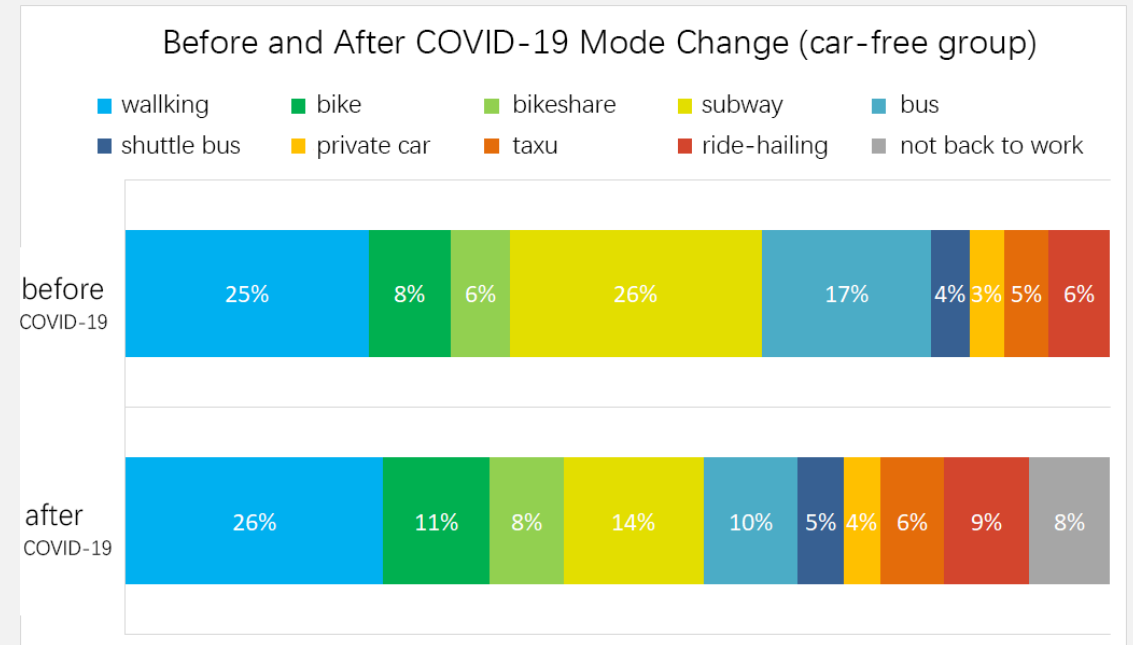
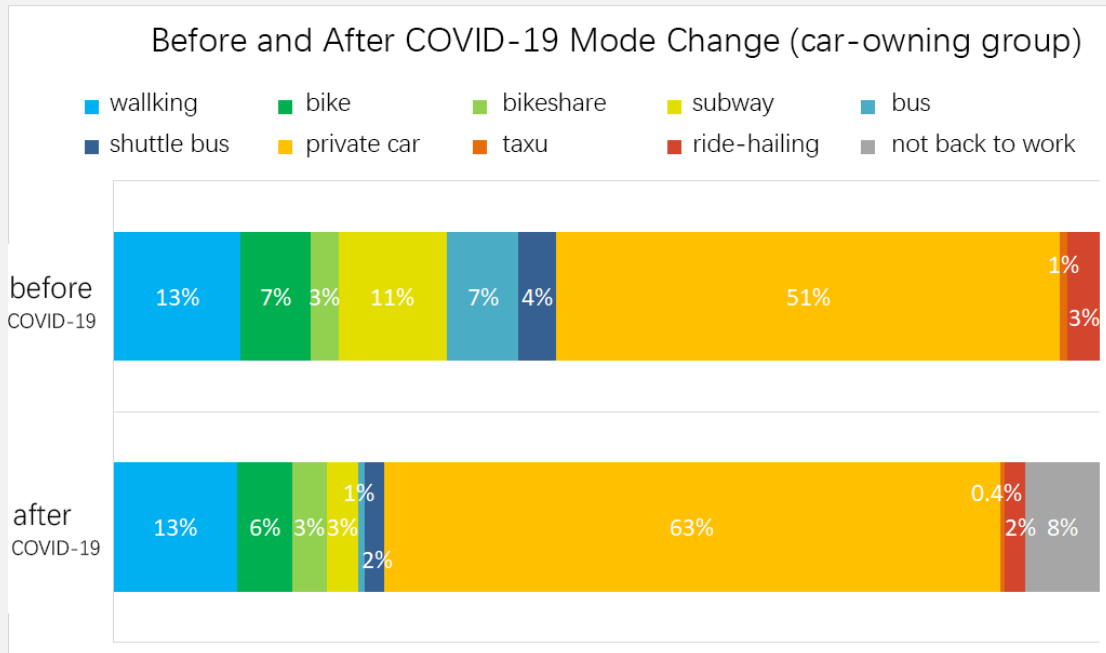
Weekend Recreational Trips

89% choose to
stay at home or go
out less. (May
2020)



Source: ITDP China

Car-owning group vs Car-free group



Source: ITDP China

After returning to work, the car-owning group is more likely to use private cars instead of metro or bus, while the car-free group is more likely to walk and bike.

Cycling Has Grown Significantly

ITDP surveyed commuters in Guangzhou, and found that many have switched their mode from transit to cycling.

In Beijing alone, three largest bike sharing systems saw user increase by roughly 150%.

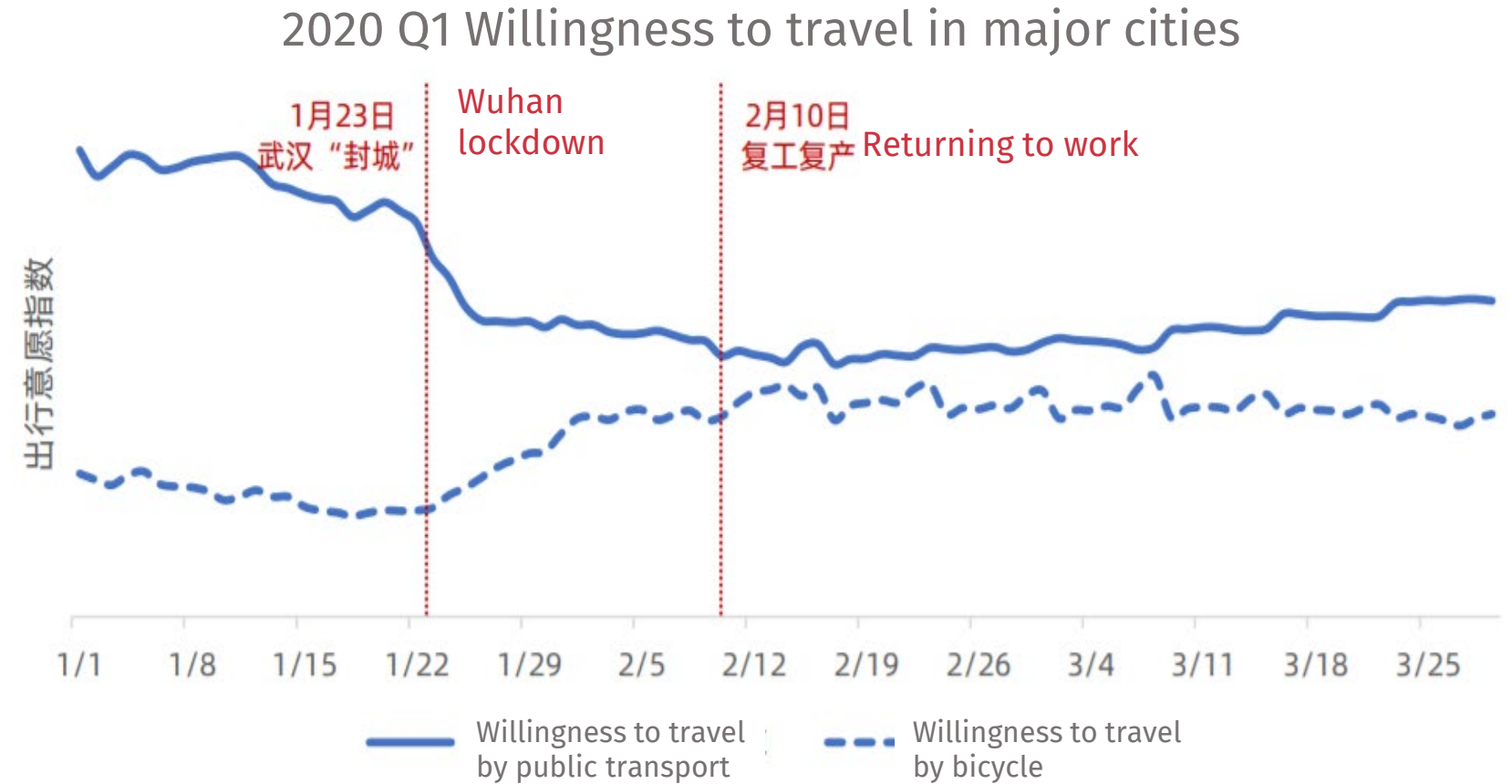
Additionally, data from bike share companies shows that trips averaged more than 3 kilometers, which was uncommon before Covid-19, when longer trips were typically taken by car or transit.

Beyond the infection fears of taking crowded public transit, it's also likely that the massive decrease in car traffic during lockdown made cycling more appealing, and much safer.



Cycling Has Grown Significantly

Willingness to travel by public transport decreased and willingness to travel by bicycle increased

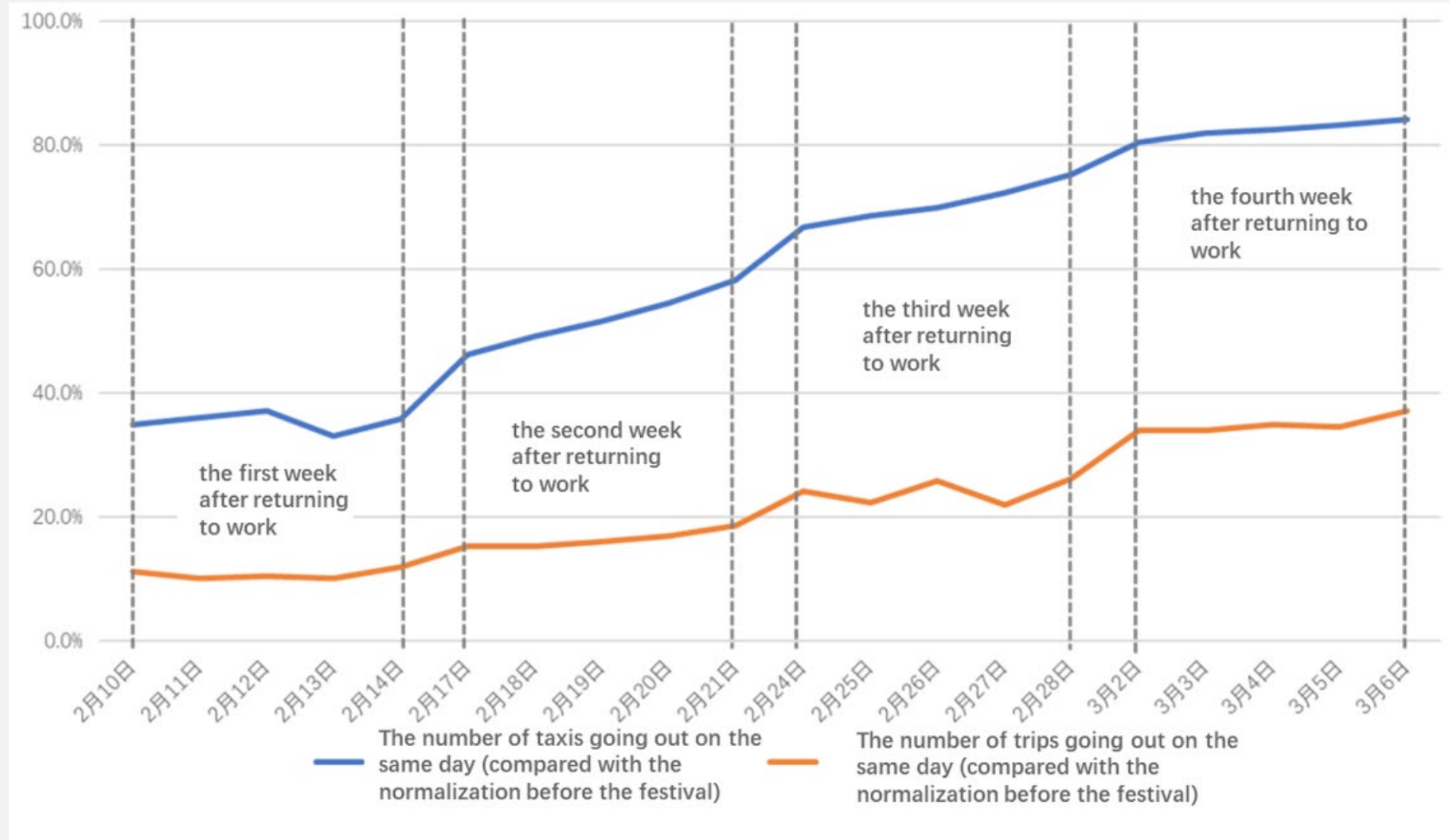


注：出行意愿指数基于高德规划大数据计算

Taxi Ridership Decreased

City of Shenzhen

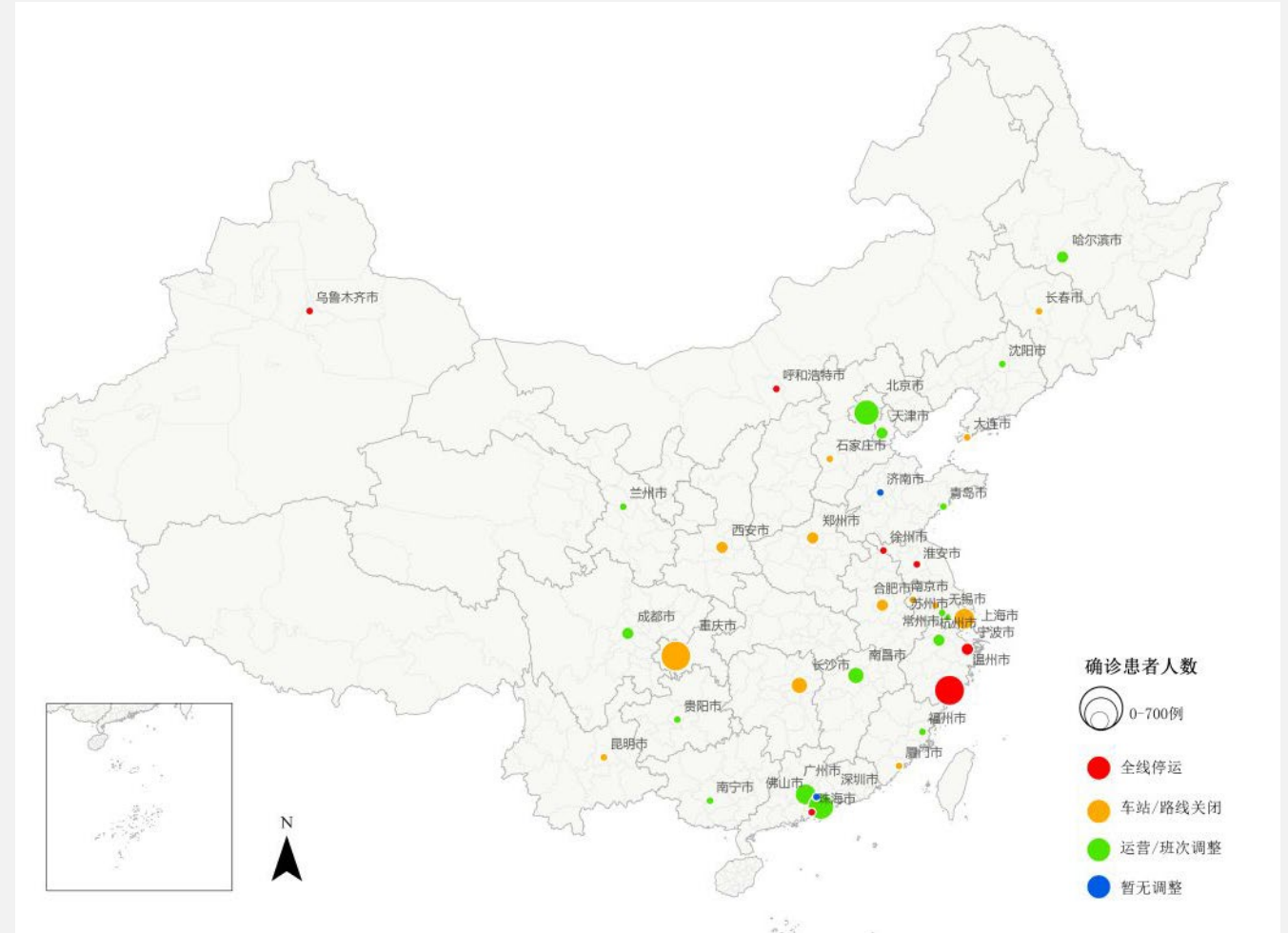
In the fourth week after returning to work, taxi ridership returned to about 35% of the normal level.



Metro Services under Covid

As of 13:00, March 4, 2020, of the 40 Chinese cities with metro services, a total of 8 cities have completely suspended operations, and 13 cities have closed stations / line(s), 30 cities have adjusted operating hours / shifts, 2 cities have no operational adjustments.

Fortunately, having a well integrated system of bus, metro, and bike sharing, people can choose the mode that best suits their needs.

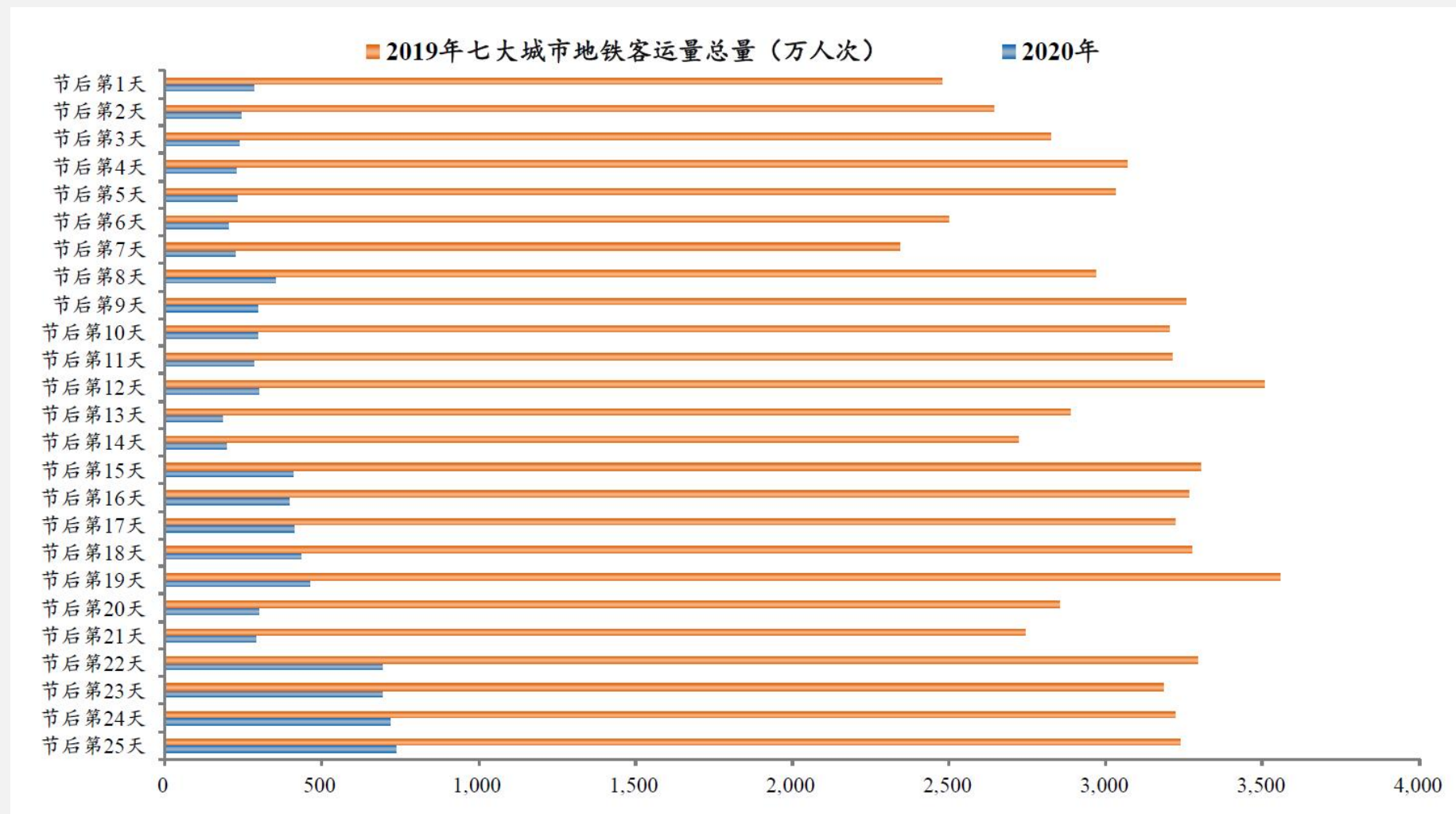


Source: ITDP China

Metro Ridership Decreased

Metro ridership of seven Chinese cities dropped sharply during the epidemic.

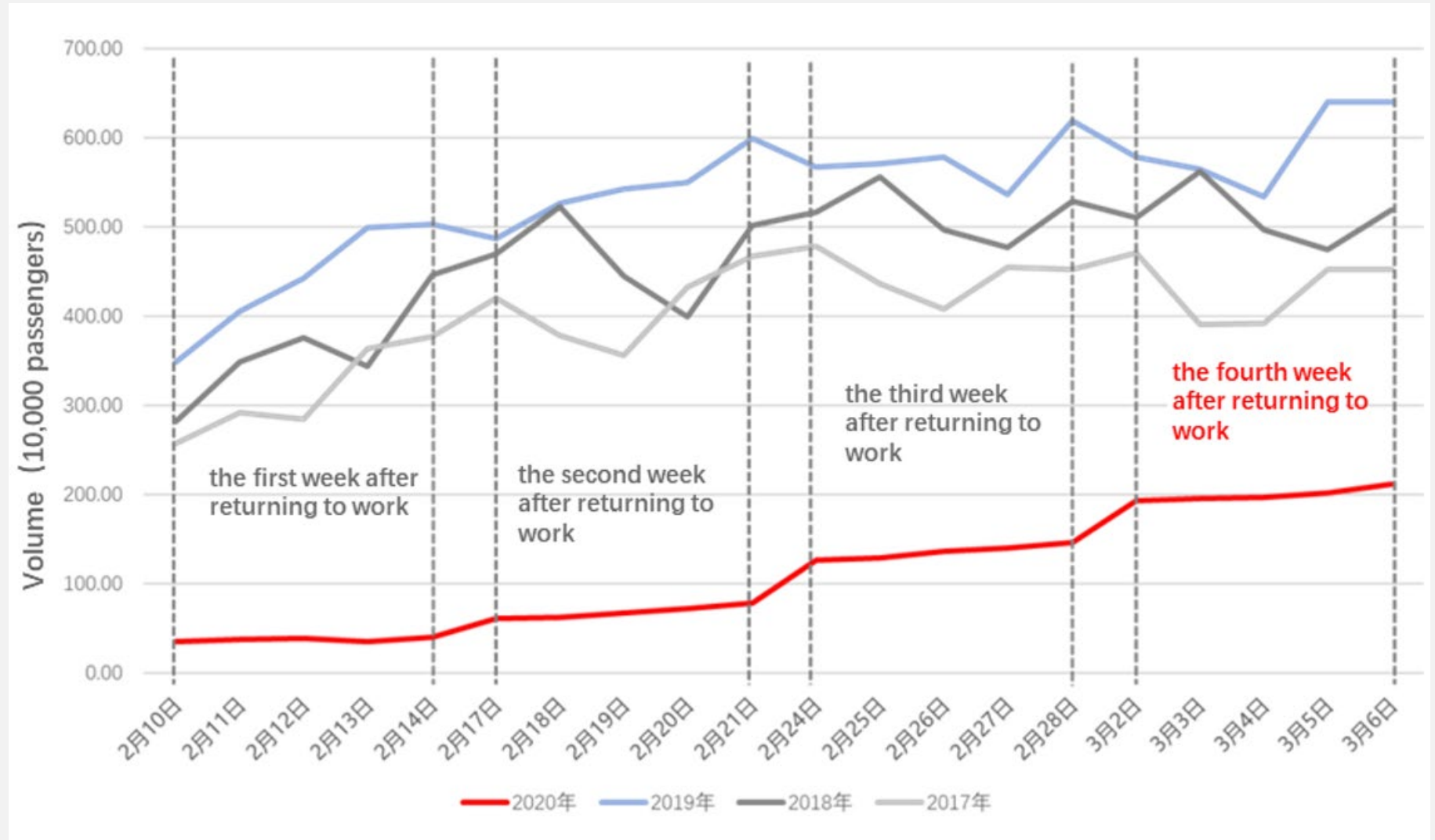
Only 22.3% in the fourth week (22nd -25th days after the Chinese New Year Holiday (Jan. 25th).



Metro Ridership Decreased

Metro Ridership data in Shenzhen

30% recovery in the fourth week after returning to work.





ITDP

Institute for Transportation
& Development Policy