WORLD RESOURCES INSTITUTE | WRI ROSS CENTER FOR SUSTAINABLE CITIES

EMERGING NEW MOBILITY VENTURES IN URBAN INDIA

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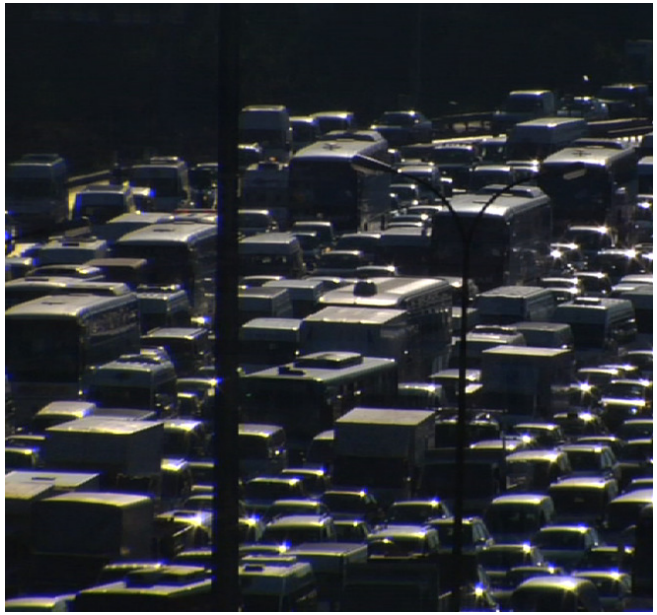
Congestion

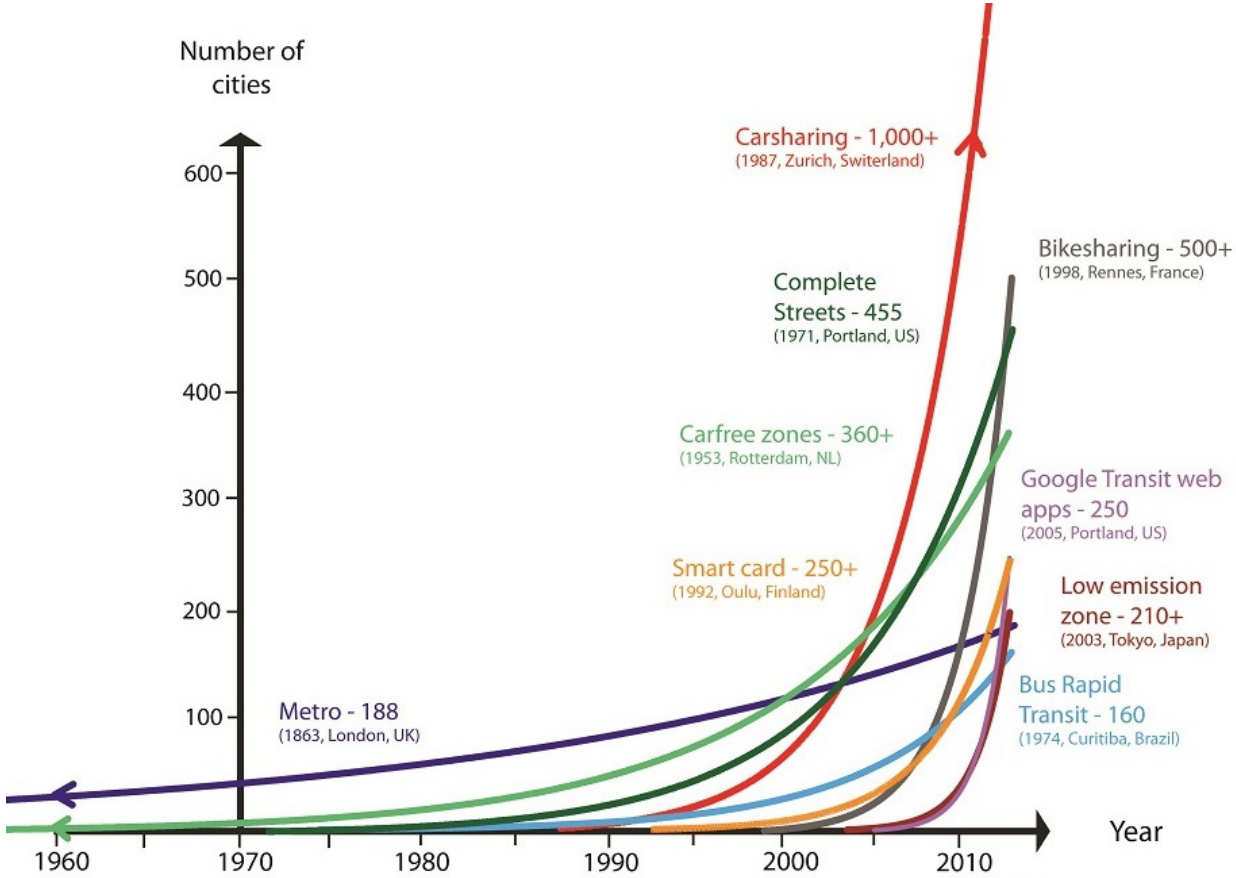


Sprawl

Inefficiency

Photo credits: (left) WRI Ross Center for Sustainable Cities, (Mexico, center) Pablo Lopez Luz, (Mexico, right) Ruimc77/FlickR

NEW TRENDS PICKING UP:
Sustainable Transport Adoption Curve



What are the trends in new mobility ventures in India?

Shared Mobility

is creating new markets

- Ride Share / Car Pool
- Vehicle Share
- Park Share

Ride-sourcing Platforms

are disrupting informal markets

- Car
- Auto rickshaw
- Van/Bus

Commuter Experience

is driving new businesses

- Driver Training
- Transit Apps
- Easy Payments

Product Innovation

is changing human behavior

- Vehicle Design
- E-Mobility

Data Driven Decision Making

is optimizing systems and processes

- Fleet Management and Vehicle Tracking
- Connected Cars / IOT

market potential | stakeholder analysis | business model | barriers| enablers| impact analysis

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Trend 1: Shared Mobility

is creating new markets.

Ride Share

P2P

- tripda
- carma
- Side-car
- RIDINGO (Indian company)
- orahi (Indian company)

Car Share

P2P

- Self Drive (Indian company)
- RelayRides
- Getaround

B2C

- Zoomcar (Indian company) — Self-Drive For The Self-Driven
- zipcar
- revv (Indian company)
- JustRide (Indian company) — RENT . RIDE . REPEAT

Park Share

P2P

- JustPark
- CARMAnation — Have it? Share it. Park it.
- PARK CIRCA

B2C

- Parking Panda
- Parkopedia
- PParkE (Indian company) — Search.Reserve.Engage
- Constapark (Indian company)

Ride Sharing is evolving but continues to have low ridership. Global companies BlaBla Car and Tripda have entered India.

The global B2C space is growing with entry by Hertz, Enterprise Rent-A-Car, Avis, Daimler, BMW and U-Haul. This market is still nascent in India. However, the self drive car rental place is an upcoming one.

Park Sharing is in early stages in India. While there are some B2C models aggregating parking spaces and offering on demand valet, there are currently no P2P models.

Indian company

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Trend 2: Ride-sourcing Platforms

are disrupting informal markets.

Indian company

Car / Taxi

P2P

Taxi Booking

- OLA
- UBER
- TAXI FOR SURE
- GRABTAXI

B2C

Taxi Rental

- EasyCabs
- MERU RELY ON US
- MEGA CABS

Car Rental

- SAVAARI CAR RENTALS

Though mired in regulatory issues, P2P models are well developed in India. Ola Cabs bought TaxiForSure for $200 million in a cash and stock deal— the second-biggest ever in India's fledgling startup world in 2014.

Auto Rickshaw

Auto rickshaw Booking (P2P)

- UBER
- OLA
- mgaadi GO PLACES!
- AUTOWALE.IN
- AUTO BAJA

Auto Rickshaw aggregation is still in early stages in India but is gaining scale via growing startups and inclusion of rickshaws on the Ola and Uber platforms.

Bus

B2C

- rBus
- cityflo
- MeriBus.com Customized Commuting Solutions
- ZipGo
- Shuttl COOL SMART BUS

Bus aggregation is an upcoming space which has attracted the attention of entrepreneurs and investors alike.

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Trend 3: Commuter Experience

is driving new businesses.

Driver Training

Driving Schools

META DRIVING SAFETY

LIGHT METRICS motion insights

Driving Programmes

I. O. C. S.

GlobalTHEN Global Travel & Hospitality Education Network

Transit Apps

Trip Planning & Schedules

zophop

ridlr

मुंबई m-Indicator

RIDESCOUT™

moovit

Aggregator of Aggregators

scoot

ixigo

Traffic

trafline

urban engines

Easy Payments

IPT providers like Ola Cabs, Uber are at the forefront with offering commuters to pay through mobile wallets. Banks are also joining hands with PPP projects to provide payment cards, which can also function as debit cards. However, no startups have emerged in this area to really facilitate seamless payments.

Automotive companies like Maruti, Toyota etc. have their own driving schools. In PPP models with the government, these offer most of the driver training in the country.

Transit Apps are growing at an phenomenal pace globally and in India. With open data, smartphone penetration, and technological advancement, this area will see a lot of activity.

Indian company

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Trend 4: Production Innovation

is changing human behaviour.

Vehicle Design

With new design and materials being used in bicycles, helmets, cars and new technology like autonomous cars, self parking etc. being integrated in cars, this space will grow slowly but surely.

Though there are no Indian startups working in vehicle and accessory design in India yet, with the Government's focus on smart cities and road safety, one should see growth in this space.

E-Mobility

Conversion Kits

- evi – Electric Vehicle India
- GRINNTECH
- Folks Motors

2-wheelers

- AMPERE – Save 'n' Style with Electric Bikes
- ATHER
- GOgreen BOV

2/3/4 wheelers

- TERRA MOTORS
- SPEEDWAYS ELECTRIC
- CLEAN MOTION

Indian company

It is estimated that if India's electric vehicle market takes off, INR 40,000 crore worth of fuel will be saved. The Government's Mission Plan 2020 envisages demand incentive scheme for faster adoption of Electric Vehicles which makes this space worth looking out for.

Trend 5: Data Driven Decision Making

is optimising systems and processes.

Fleet Management & Vehicle Tracking

B2B

Nivaata

LIGHT METRICS motion insights

MoveInSync Efficient Transport Solutions

CUBiTO

SXnavo

Fleet Management is one of biggest opportunities thanks to policy initiatives by central and local government and demands for improved security in public transport. This space is, however, still evolving.

Connected Cars / IOT

B2C

transpose MIN[D]ING-DATA

ENNOVASYS

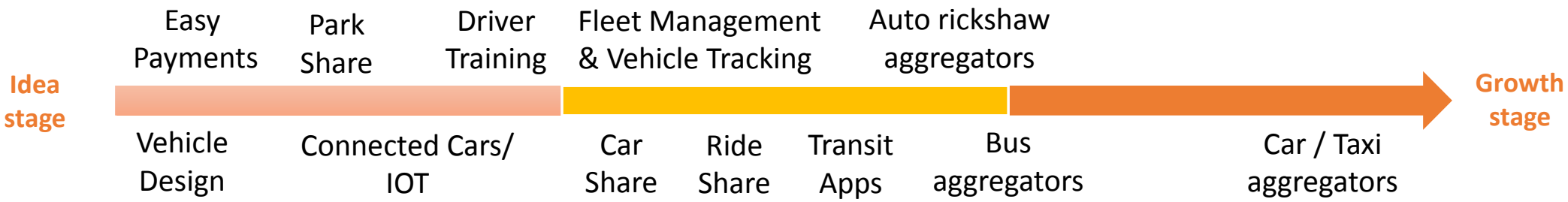
FUELBOOK

cariQ

TRAXROOT™ INTERNET OF THINGS PLATFORM

The government's focus on smart cities and private sector engagement like Mahindra collaborating Vodafone, to create M2M-enabled e2o electric car is changing the landscape of IOT. There are very few startups in this space.

How are these trends evolving in India?



Indian mobility businesses raised $365 million in 2014. 60% was raised by taxi aggregators.

Only a miniscule number of mobility businesses in other segments have been able to raise funding.

Challenges and barriers include
Regulation and policy issues
Lack of open data
High cost of technology and research
Access to seed funding

Case Study- Mumbai

Key findings (customer perspective)

- High Quality of Service
- Switching from all modes to On-demand cabs
- Usage for personal trips and to major destinations
- Parking -issue for using personal vehicles

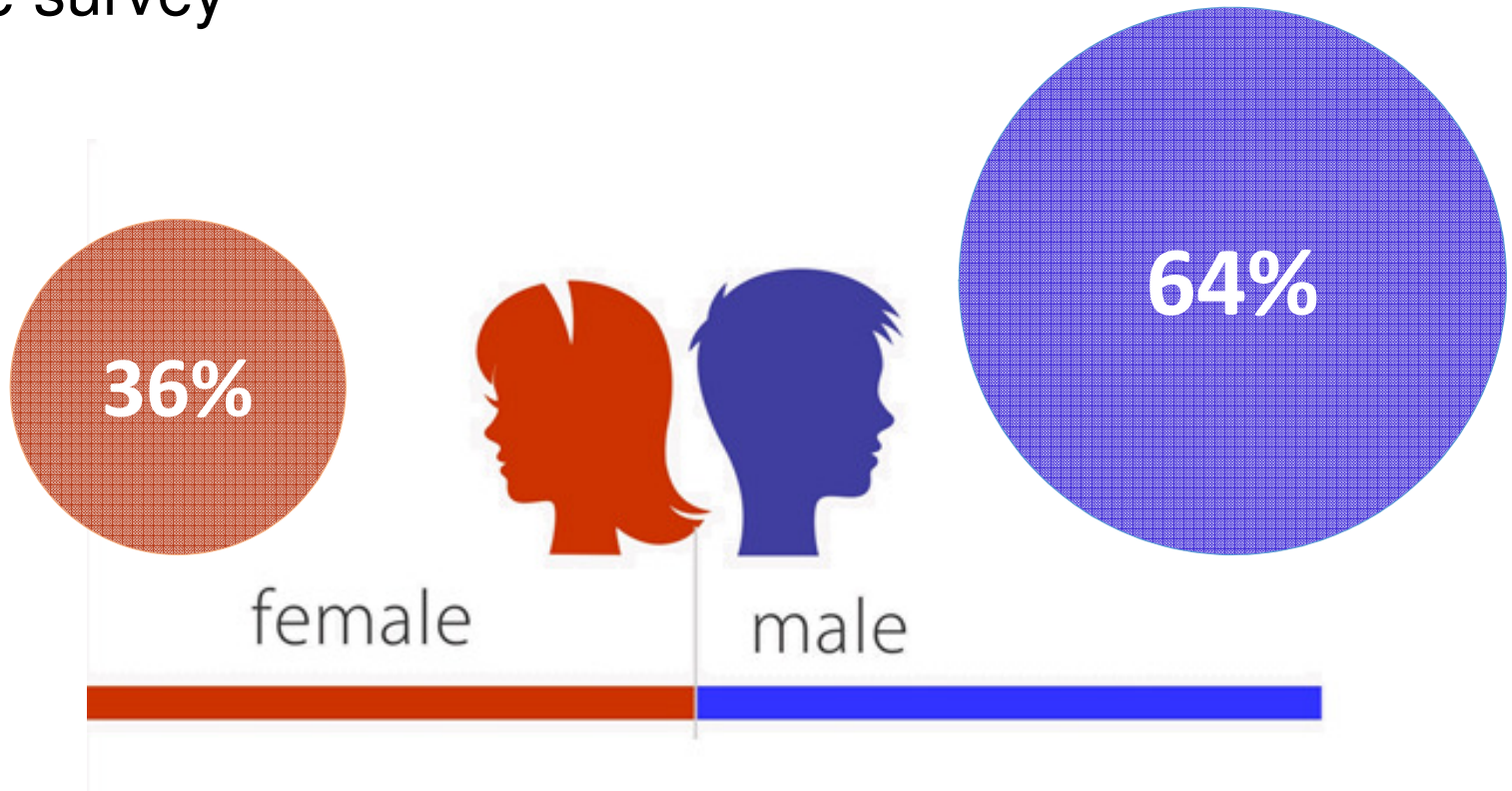
Key findings (driver perspective)

- On-demand cab drivers are satisfied
  - High number of trips with potential for incentives
  - Able to rate customers
  - Increase in income levels
- Impact on the current players
  - Reduction in number of trips and income levels
  - Need to transition to demand responsive

Customer perspective

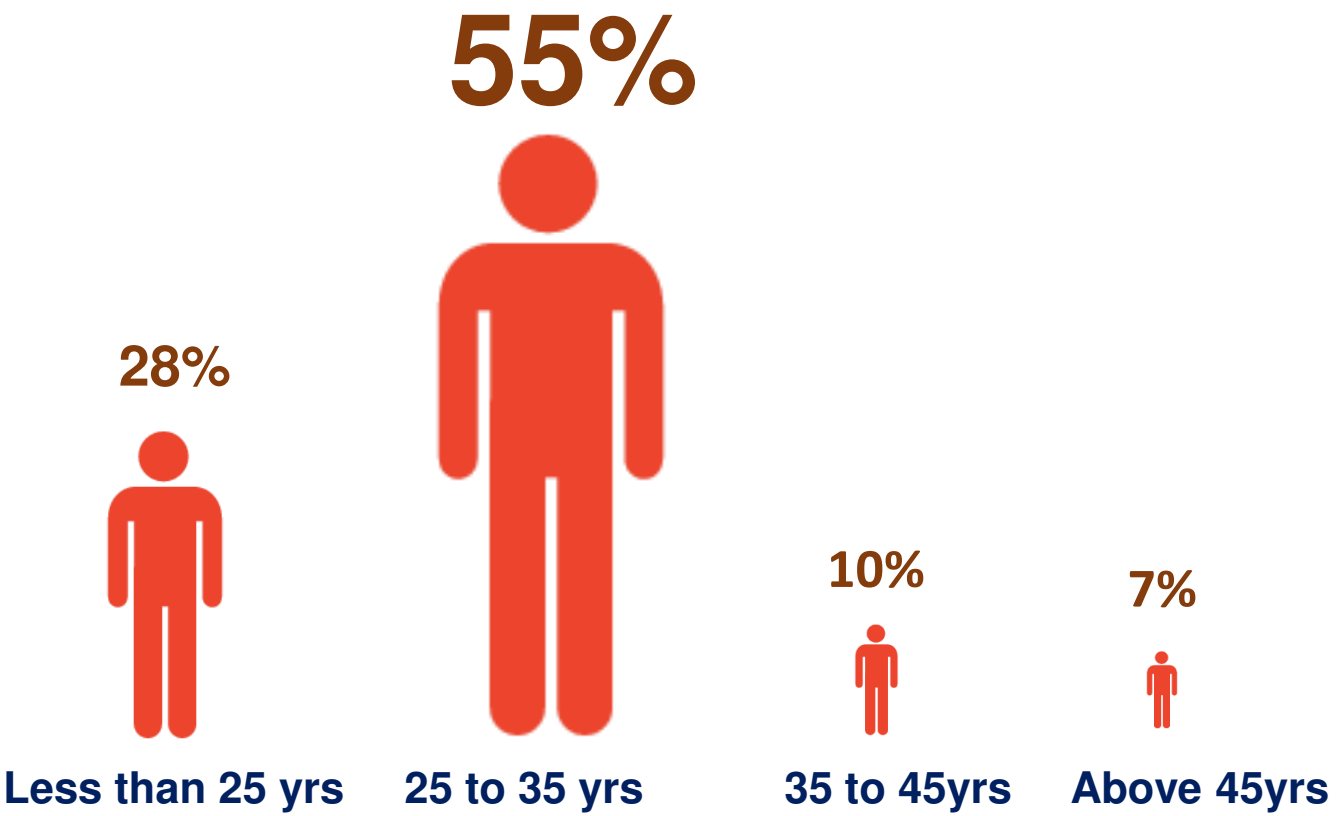
Survey details

- Sample Size- 246
- Online survey



Source: WRI India- EMBARQ Survey

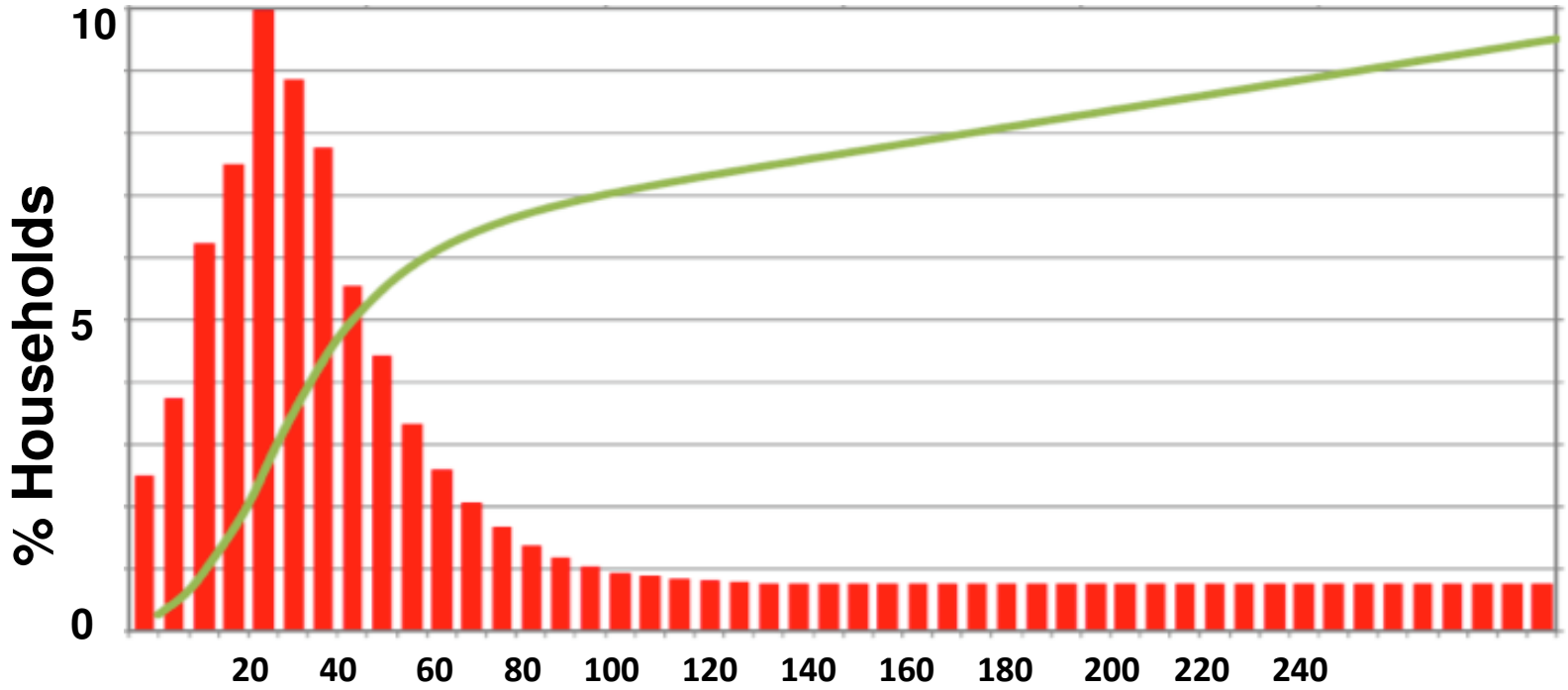
Age group



Source: WRI India- EMBARQ Survey

Income levels in mumbai

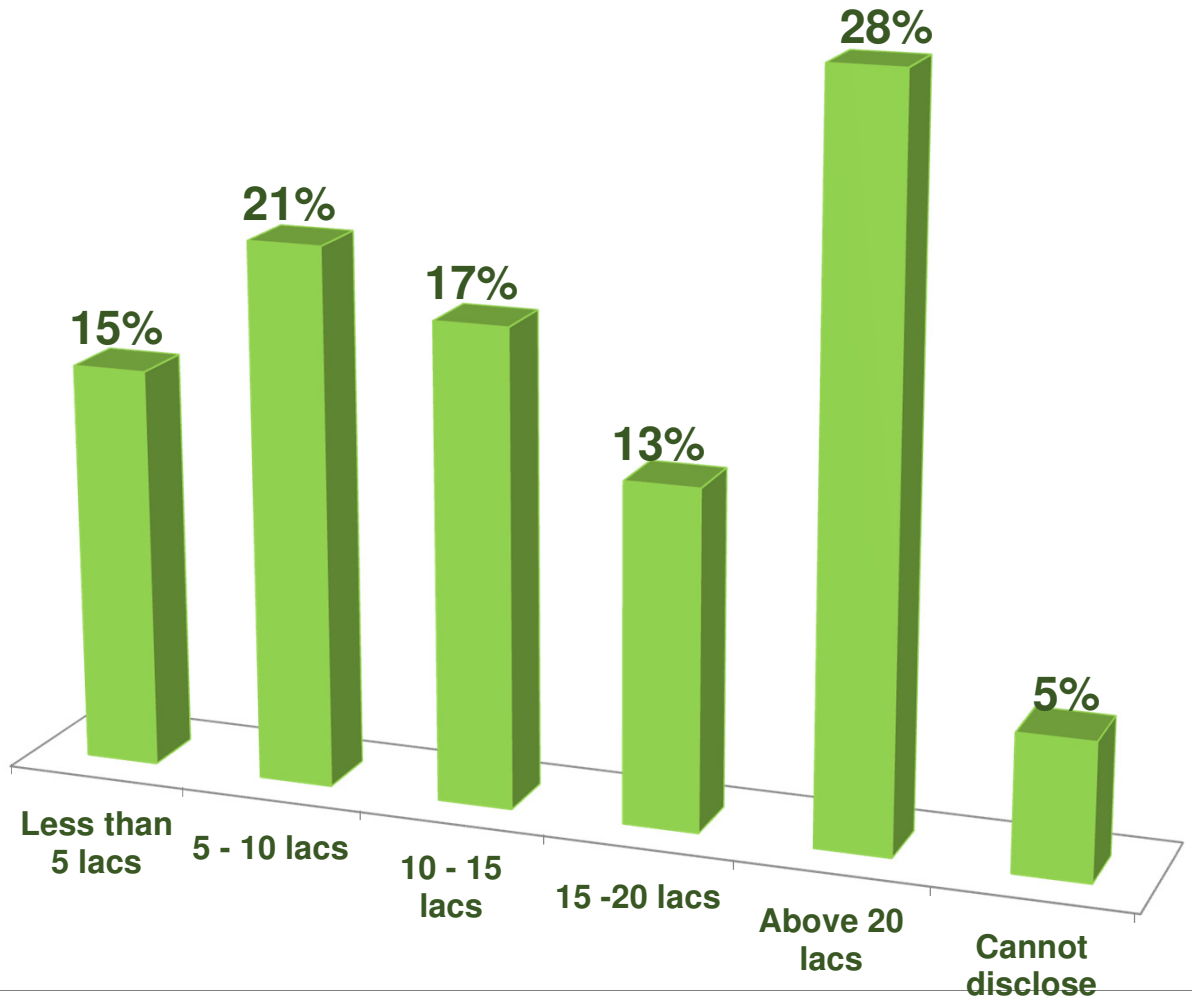
Chart covers 95% households in Mumbai



Monthly Household Income Rs '000 in 2015
(assuming hh income distribution as in 2005)

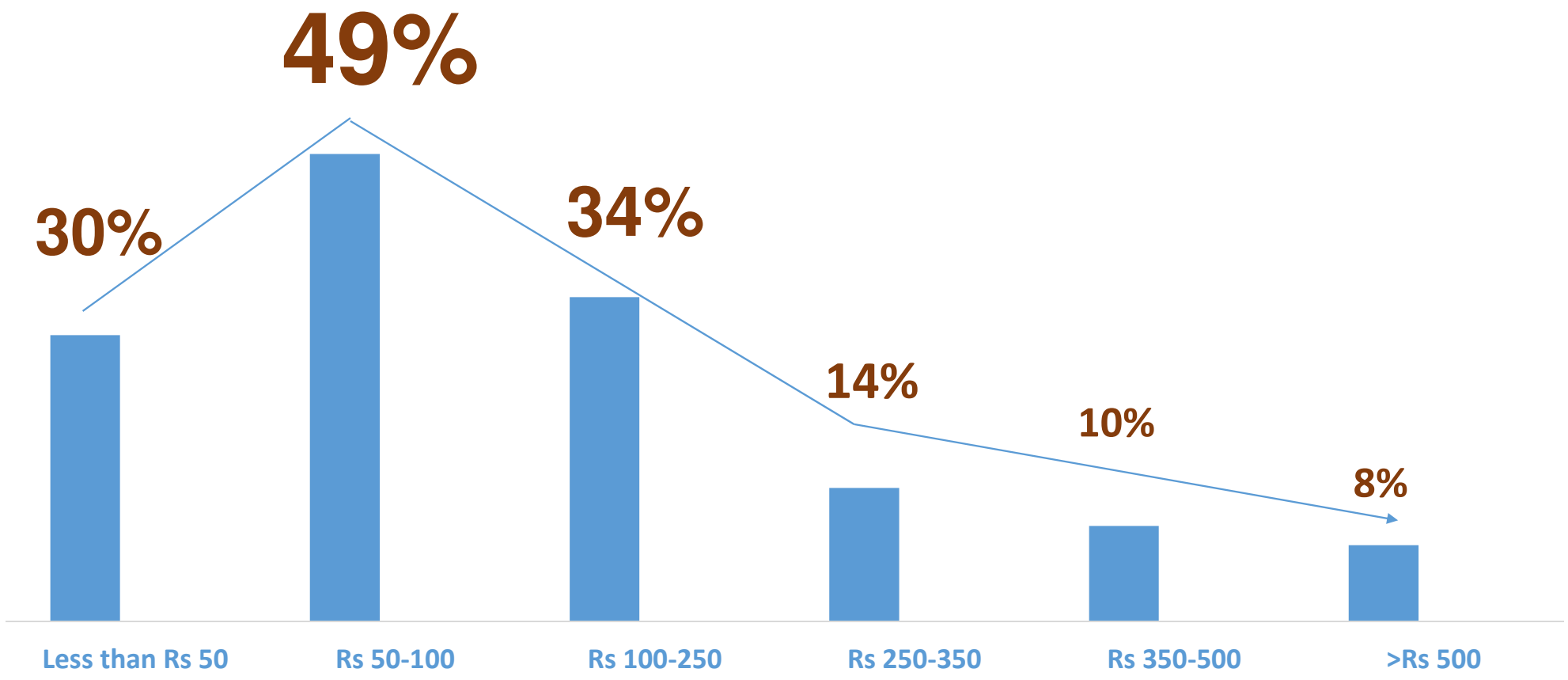
Source: MMRDA HH Survey

Income levels



Source: WRI India- EMBARQ Survey

Expenditure on daily commute



Source: WRI India- EMBARQ Survey

Vehicle ownership

35 %

Do NOT have a vehicle
& have income >10 lacs

Source: WRI India- EMBARQ Survey

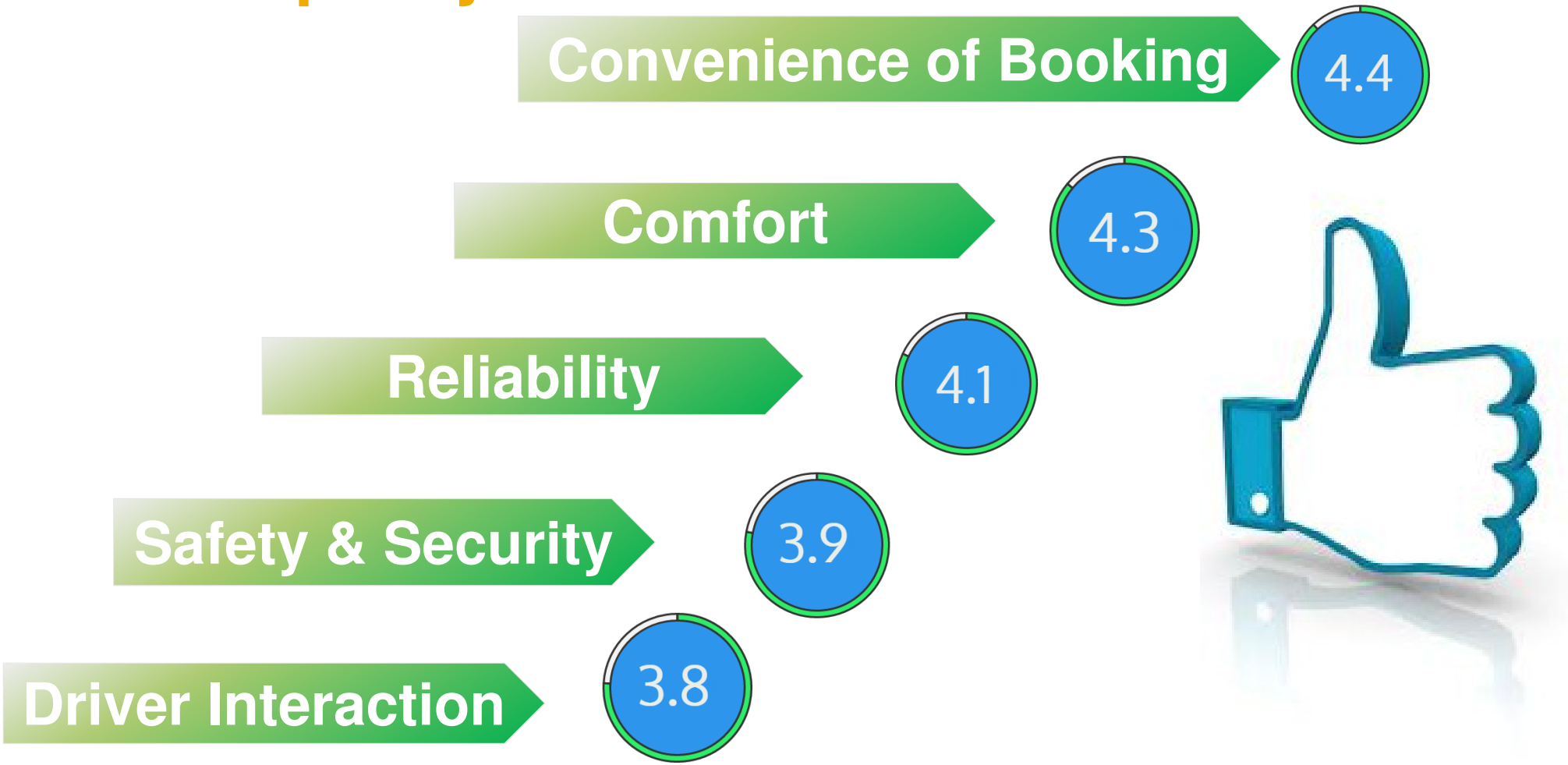
On-demand cabs

80 %

Have used the service at least once

Source: WRI India- EMBARQ Survey

Service quality



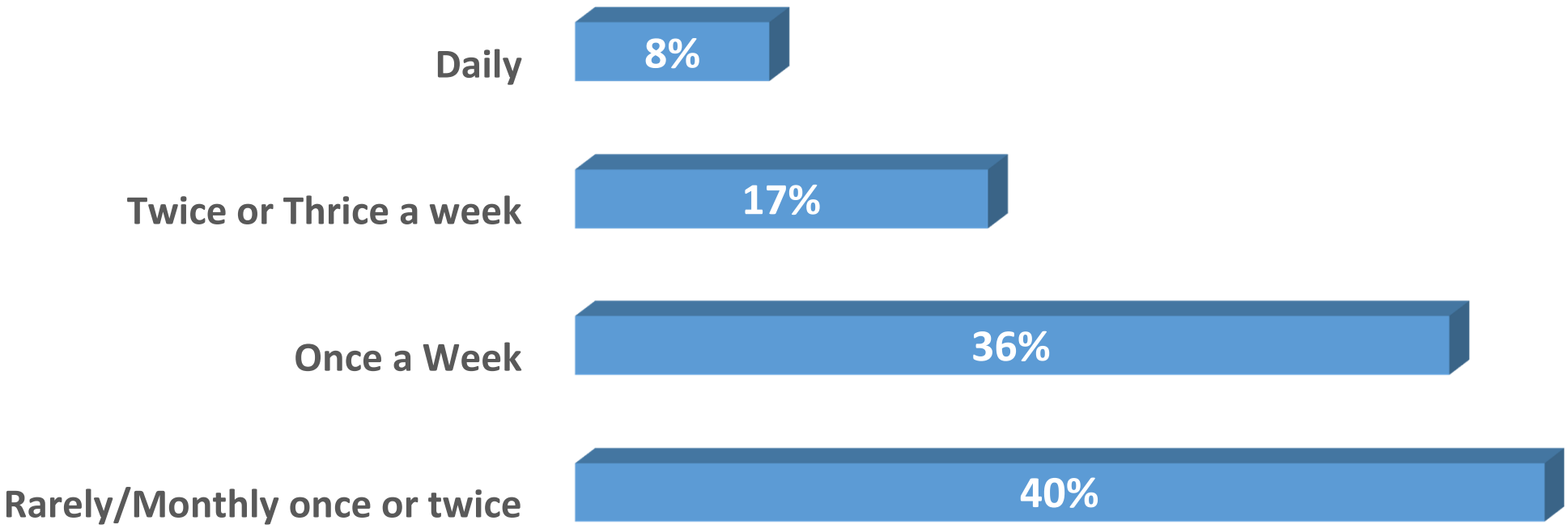
Source: WRI India- EMBARQ Survey

Reason for the usage

- Ease of travel, comfort, hassle-free
- Low Fares
- Unavailability of PT public transport
- Parking

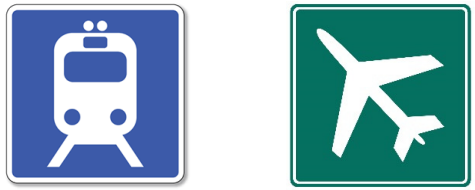
Source: WRI India- EMBARQ Survey

Frequency of use



Source: WRI India- EMBARQ Survey

Trip purpose



64%

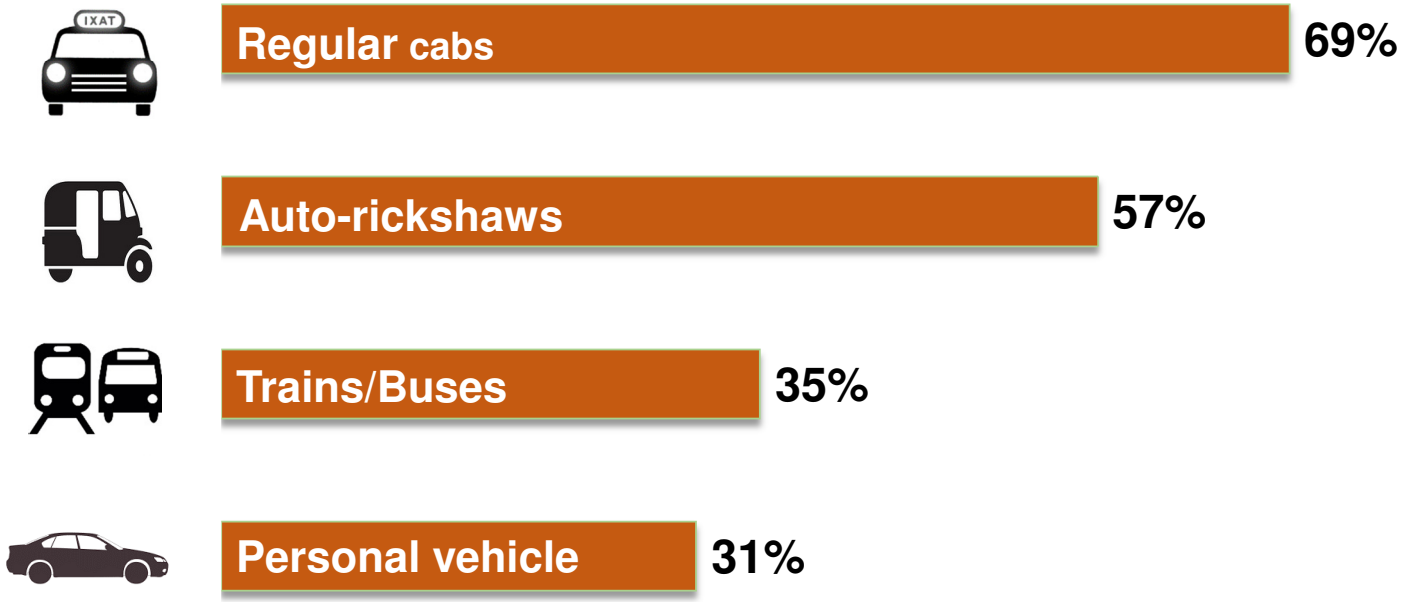
65%

47%

21%

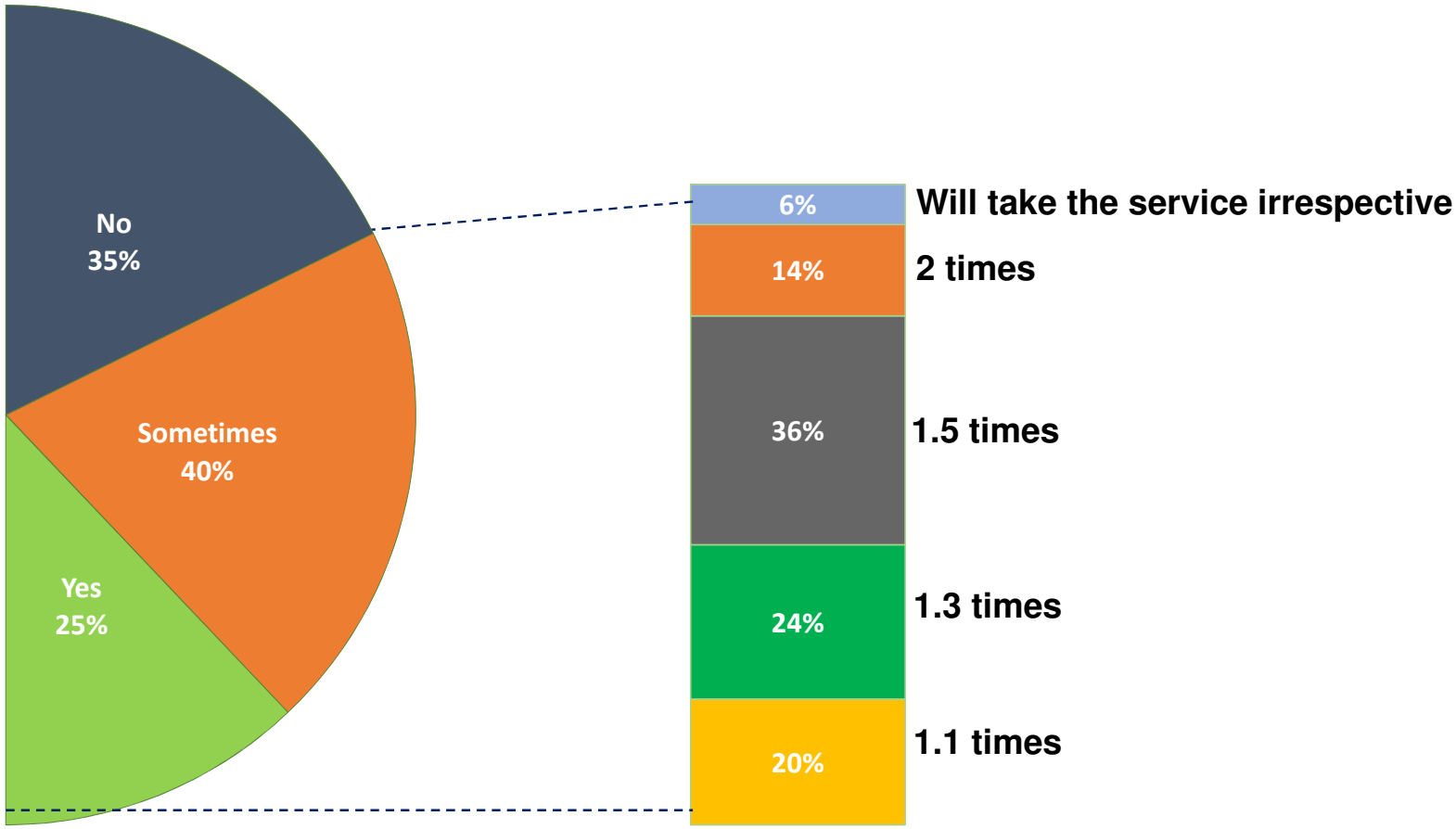
Source: WRI India- EMBARQ Survey

Prior mode of travel



Source: WRI India- EMBARQ Survey

Surge pricing



Driver perspective

Black and yellow taxis

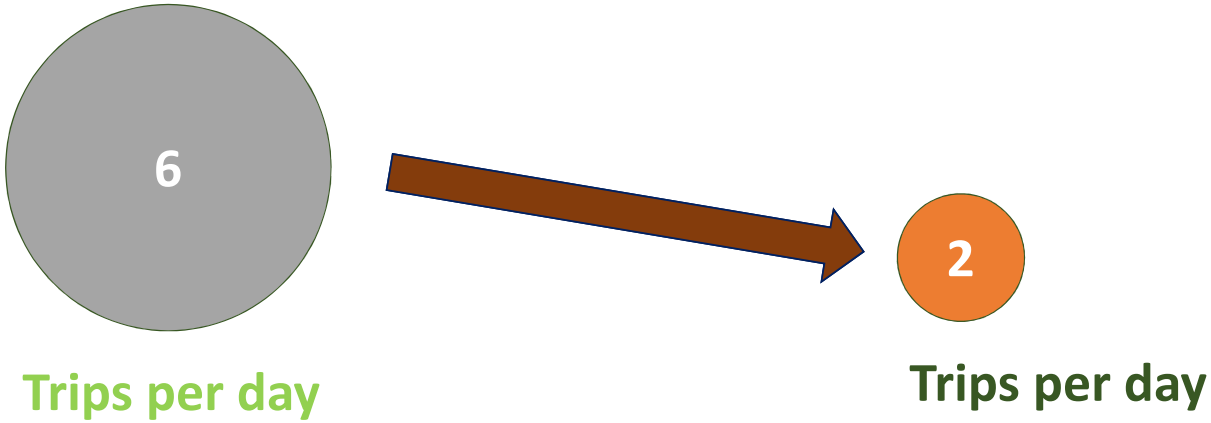
Rs.1200 /day

Rs.600/ day

Source: WRI India- EMBARQ Survey

Cool-cabs

- 50-70% reduction in Income



Source: WRI India- EMBARQ Survey

Comparison of CAB SERVICES

- Police verification includes license, Aadhar card, ration card
- Avg income 18000 Rs/month
- Operate for 12 hrs shift
- Panic button
- Driver training includes app usage, behavior towards customer and 80km/hr speed limit

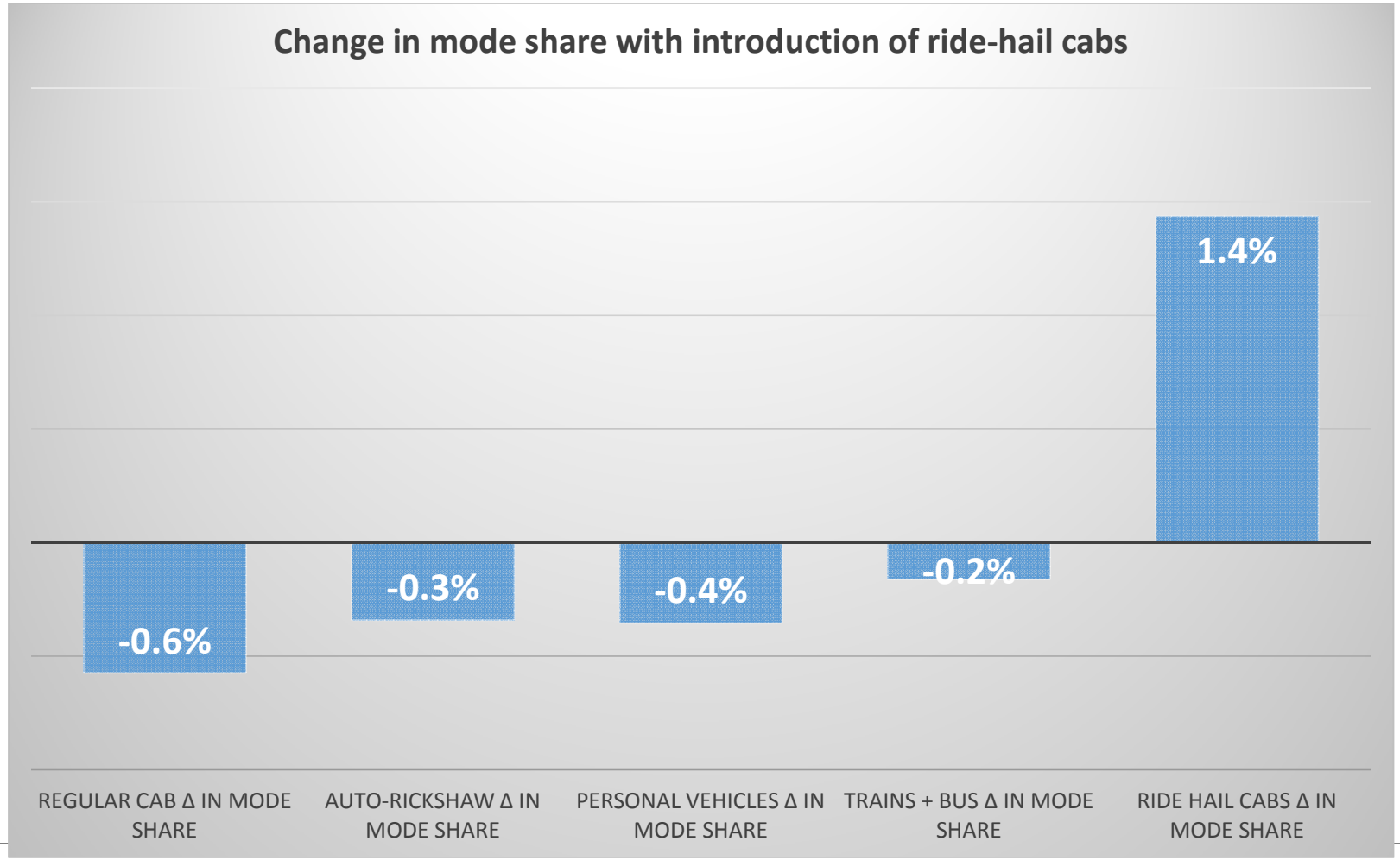
- Have to pay for permits, license, badge and fines
- Focused on NRI and out of station passengers
- Operate for 4hr/8hr shift
- Expensive compared to on-demand cabs
- No panic button
- No driver training

- Permits are rented out illegally
- Avg Income Rs. 500/day
- Operate mainly in the island city
- Operate for 10-12 hours, 30days/month
- No panic button
- No driver training

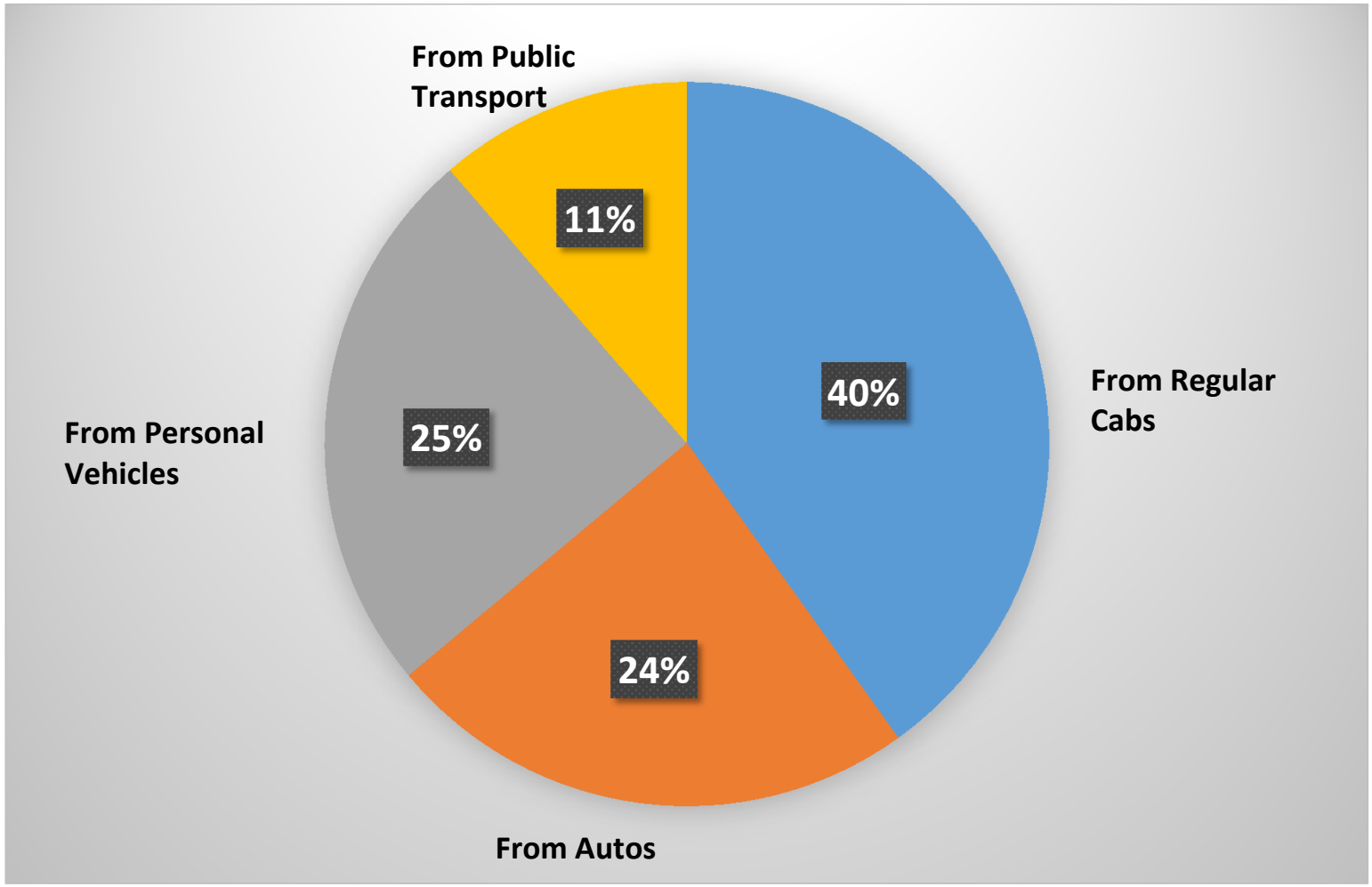
Source: WRI India- EMBARQ Survey

City Wide Impact

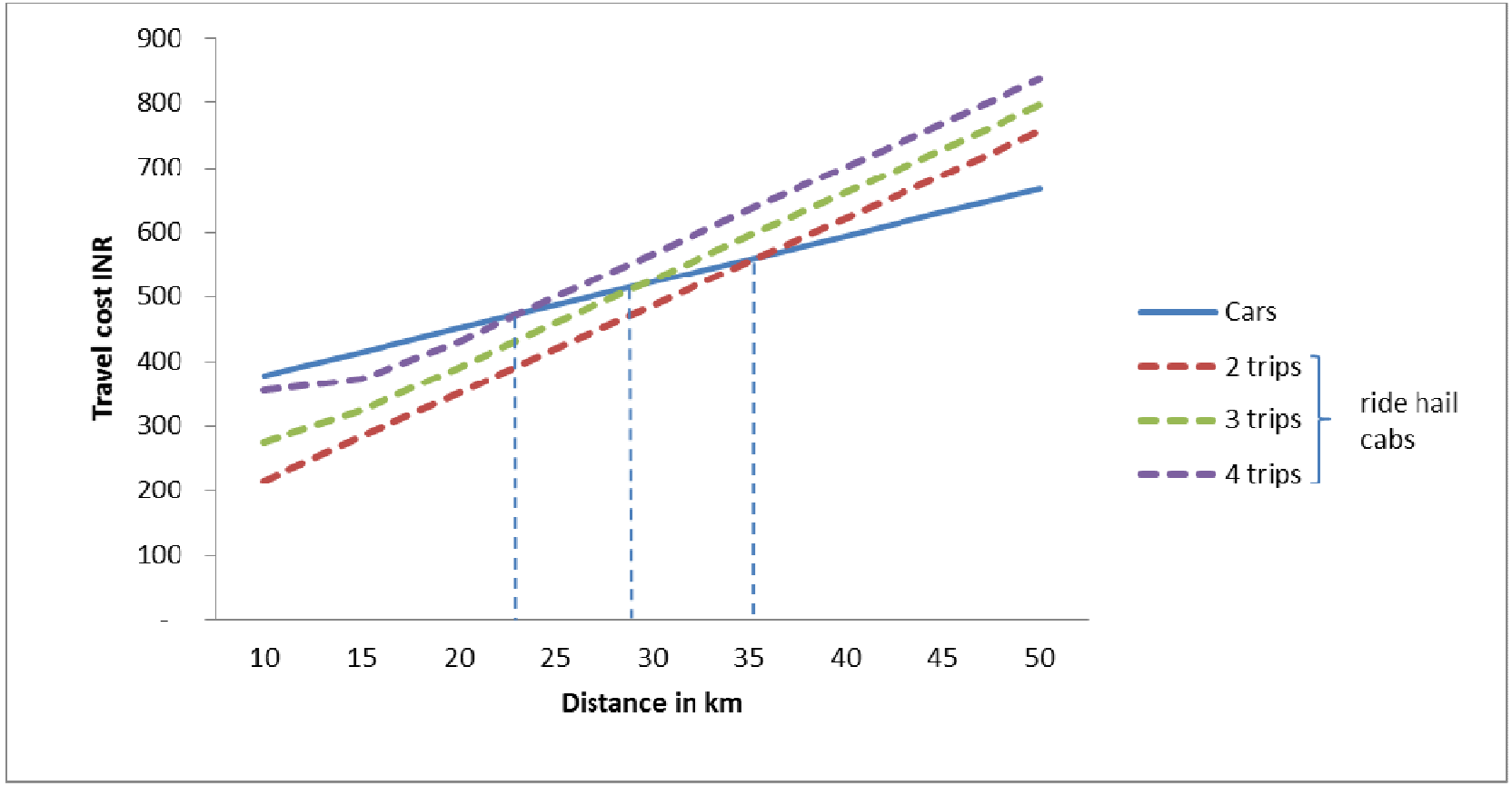
Mode Share


Change in mode share with introduction of ride-hail cabs
-0.6%
-0.3%
-0.4%
-0.2%
1.4%
REGULAR CAB Δ IN MODE SHARE
AUTO-RICKSHAW Δ IN MODE SHARE
PERSONAL VEHICLES Δ IN MODE SHARE
TRAINS + BUS Δ IN MODE SHARE
RIDE HAIL CABS Δ IN MODE SHARE

Mode Shift


From Public Transport
11%
40%
From Regular Cabs
From Personal Vehicles
25%
24%
From Autos

Travel Costs

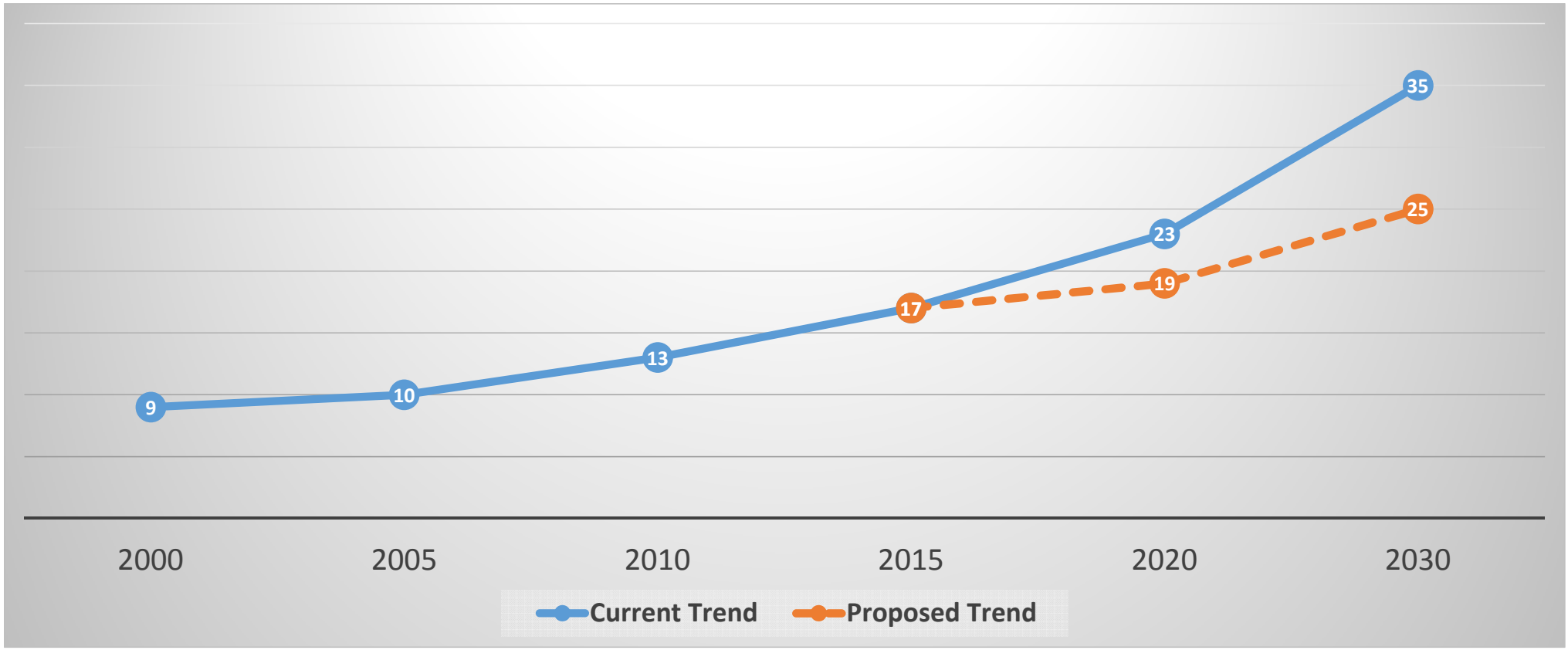


Potential Car ownership in the city

2-3 Lac Cars

In the next 5 years (Age group 25-45 yrs)

DELAY IN VEHICLE OWNERSHIP (per 1000 population)



55 % increase in vehicles in last 7 years (Total- 23.4 lacs)

On-demand bus

63%

"YES"

Key findings (city-wide)

- Potential to delay personal vehicle ownership
- On-demand services is a growing mobility trend and a solution
- Need a governance system to facilitate the management of these trends

Current regulatory framework

Fare structure

Vehicle and fuel

Permit and driver

Key metrics for ipt in mumbai

Availability	Driver income
Efficiency	Affordability
Coverage	Safety
Quality	Environment




CONTACT US

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