

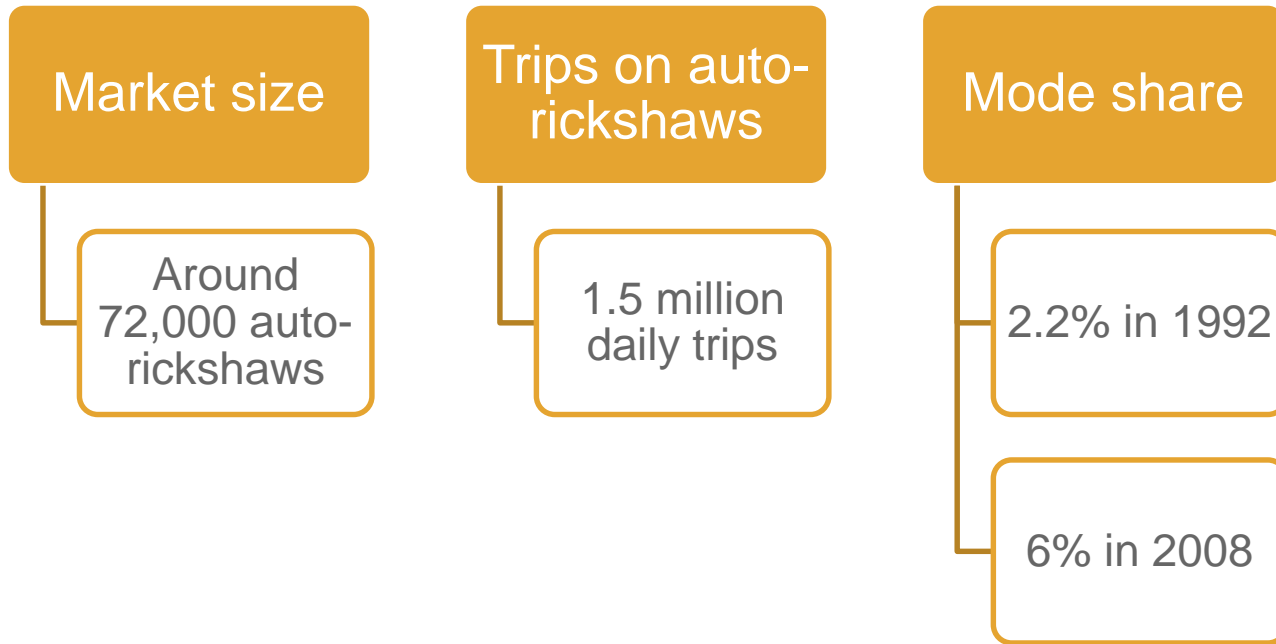
# Assessing the Impact of Auto-rickshaw Fare Reforms in Chennai

A study by  
Roshan Toshniwal and Akshay Mani  
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# Background

## *Key statistics on auto-rickshaws in Chennai*



# Background – key issues

No fare reforms from 1996-2007



Reforms in 2007, but not found acceptance with auto-rickshaw drivers

Restriction on number of permits till May 2010



Hoarding of permits, leading to inflation of overall cost of auto-rickshaw

Lack of access to formal sources of financing



High financing costs from informal financiers, leading to unviable costs of ownership

Permit caps leading to under-supply of auto-rickshaws



Undersupply resulting in driver's market, where drivers call the shots and charge exorbitant fares

# Background on fare reform efforts

## Supreme Court Directive

- In 2012, this problem of missing meters in auto-rickshaws was represented in the **Supreme Court of India** and in **July 2013** the court directed the Tamil Nadu **government** to revise the fare in four weeks.

## Technical fare reforms committee

- Thereafter, the transport department of Tamil Nadu instituted an internal Technical Committee to visit and study the fare regulation models from the neighbouring states of Kerala, Karnataka and Andhra Pradesh.

## Scientific approach to fare estimation

- **EMBARQ India** helped the government in creating parameters to **rationalise the fare** and presented them with an **IPT policy (Inter Para Transit)**, a **comparison of fares across other cities** and a **fare estimation toolkit** was made in July 2013 to assist the government in determining the revised fares.

## Collective decision to revise fares

- Close door stakeholder meeting between government officials and other stakeholders (auto unions, entrepreneurs, Consumer Association of India (CAI), Chennai City Connect, Embarq India, Times of India, and Dr. Prahlathan)

# Revised Auto-rickshaw Fares

## Revised fares

- In **August 2013**, the Tamil Nadu government formally announced the fare revision – now set at **Rs 25 for the first 1.8 km, and Rs 12** for every additional km thereafter.

## Digital meters

- Auto-rickshaw drivers in the city were given until **15<sup>th</sup> October 2013** to recalibrate or install a digital meter but the due date was extended to **15<sup>th</sup> November 2013**.

## Fare revisions

- It was further agreed that no decisions will be made on the next fare revision until the price of the petrol prices increase by **Rs 10**, after which it would be the government's decision on formulating a committee or just revising the fare

# Objectives of the study

## Impacts of fare reforms

- Understand the impacts of the reforms – from the perspective of drivers and passengers.

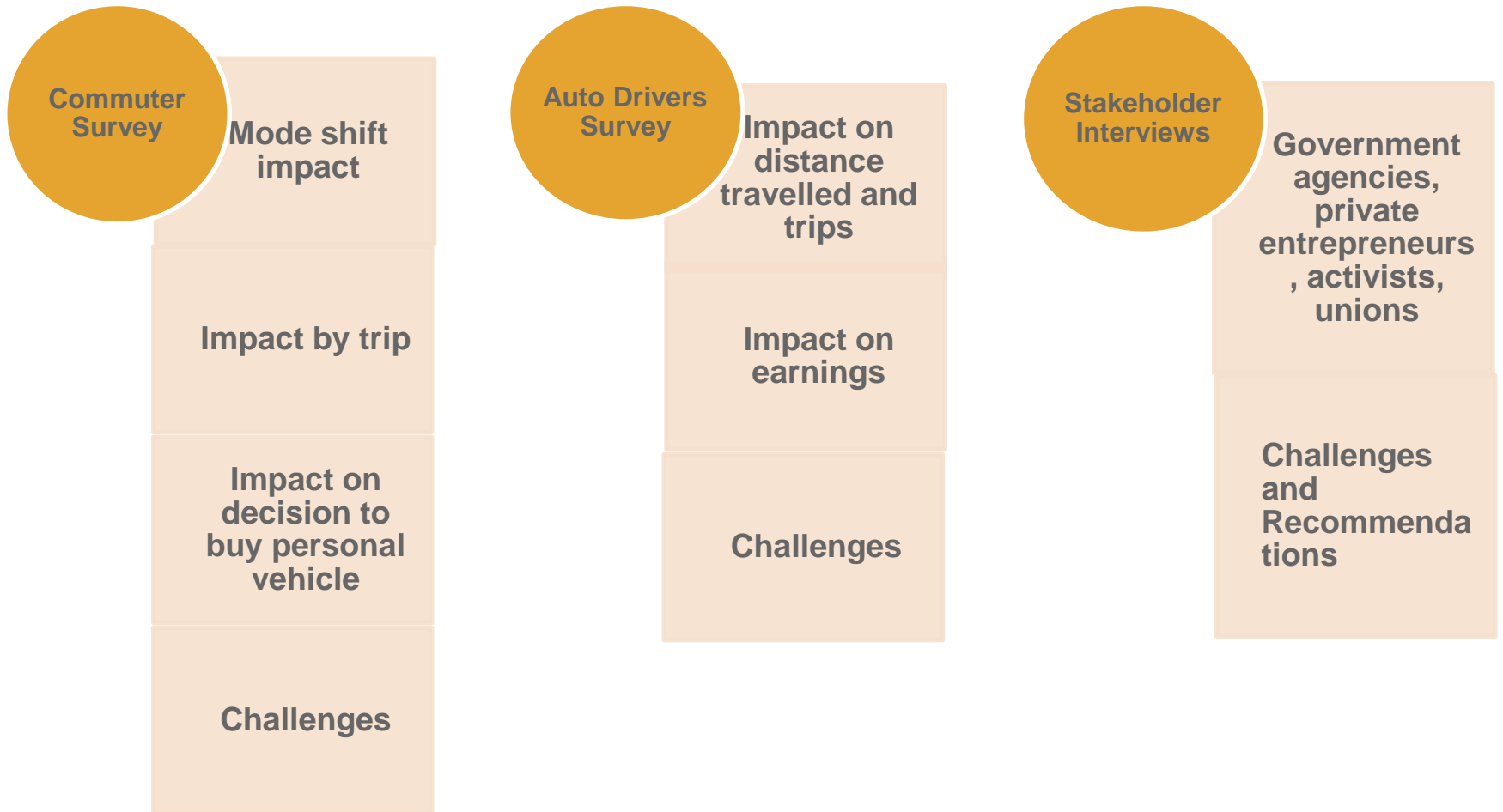
## Challenges faced

- Get insights into the challenges that the fare reform have thrown up

## Recommendations for future reform efforts

- Develop recommendations for future reform efforts, which can promote a high quality auto-rickshaw service in the city.

# Study methodology



# Commuter survey: measuring impacts and challenges

- The survey comprised of 522 commuters in residential areas, outside malls, Cineplex, hospitals, famous temples, and market areas.





# Profile of commuters

Figure 1: Professions of the respondents

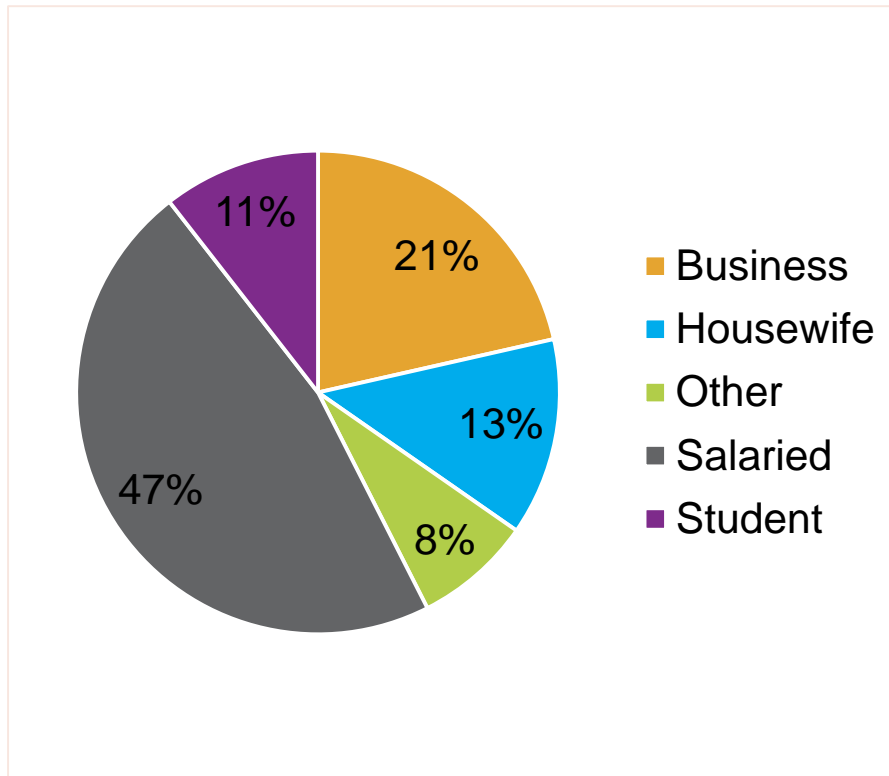
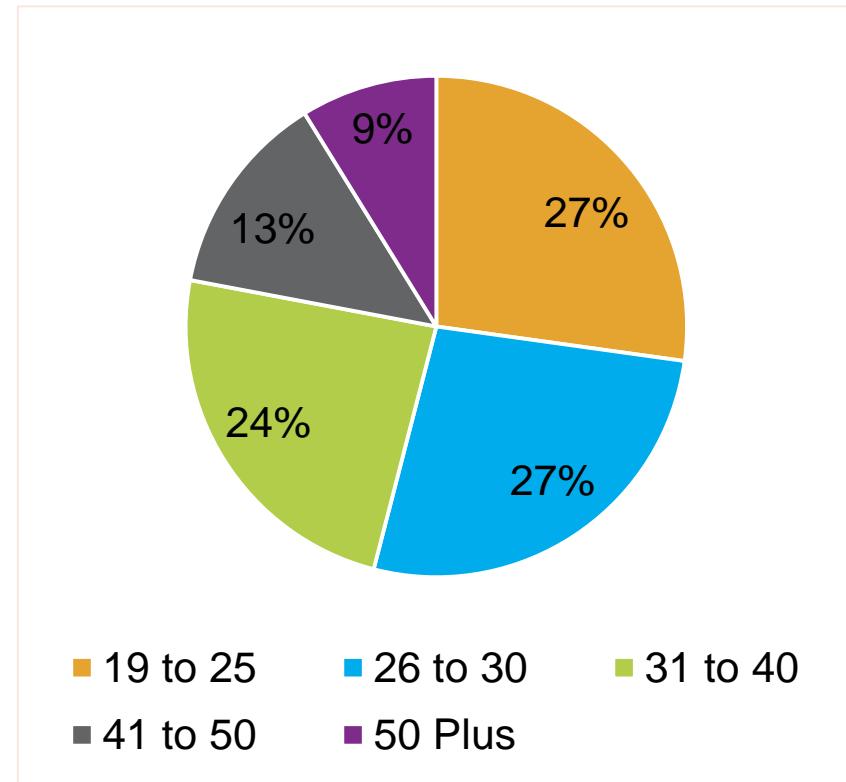


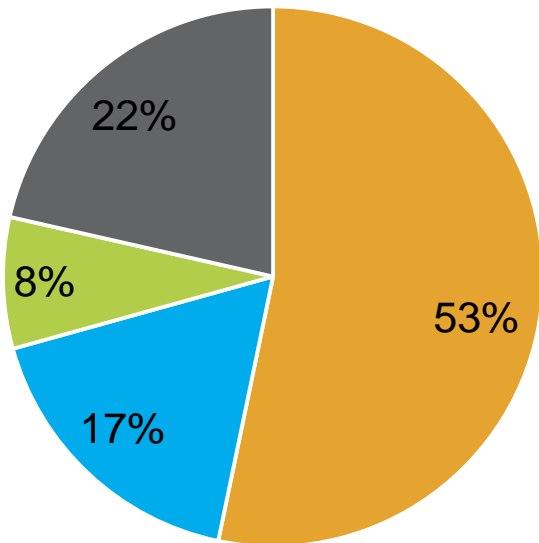
Figure 2: Age group of respondents



➤ 71% were men and 29% were women

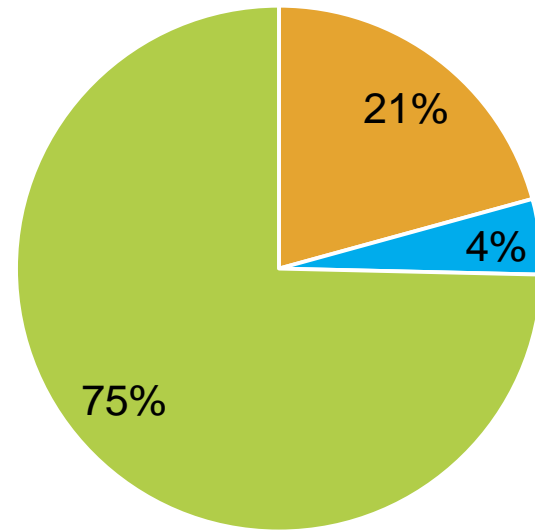
# Vehicle ownership and usage patterns

Figure 3 Number of vehicles owned by the respondents



■ 1 ■ 2 ■ 3 or more ■ None

Figure 4 Type of vehicles owned by respondents



■ Both ■ Car ■ Two wheeler

- Amongst the respondents who owned 2 vehicles or more, 27% owned only two wheelers, 64% owned both car and two wheeler while 8% owned only cars.

# Trip purpose and factors impacting personal vehicle use

## Trip purpose

- Amongst the vehicle owners, 82% of them use their vehicles for both work and non-work trips, while 13% use them only for non-work trips.

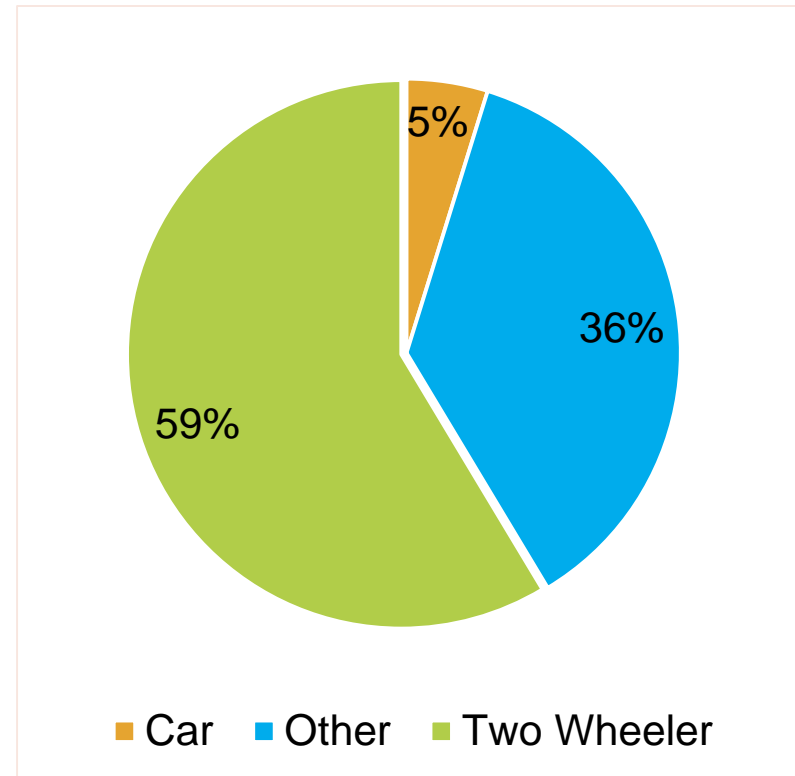
## Factors impacting personal vehicle use

- About 89% of the respondents said they use personal vehicles due to the poor quality of auto-rickshaw and public transport services in Chennai.

# Mode shift impacts due to auto-rickshaw fare reforms

- 80% of the respondents said they have shifted some trips from other modes to auto-rickshaws, as a direct result of the fare reform.
- Close to 60% of the shifts occurred from two-wheelers

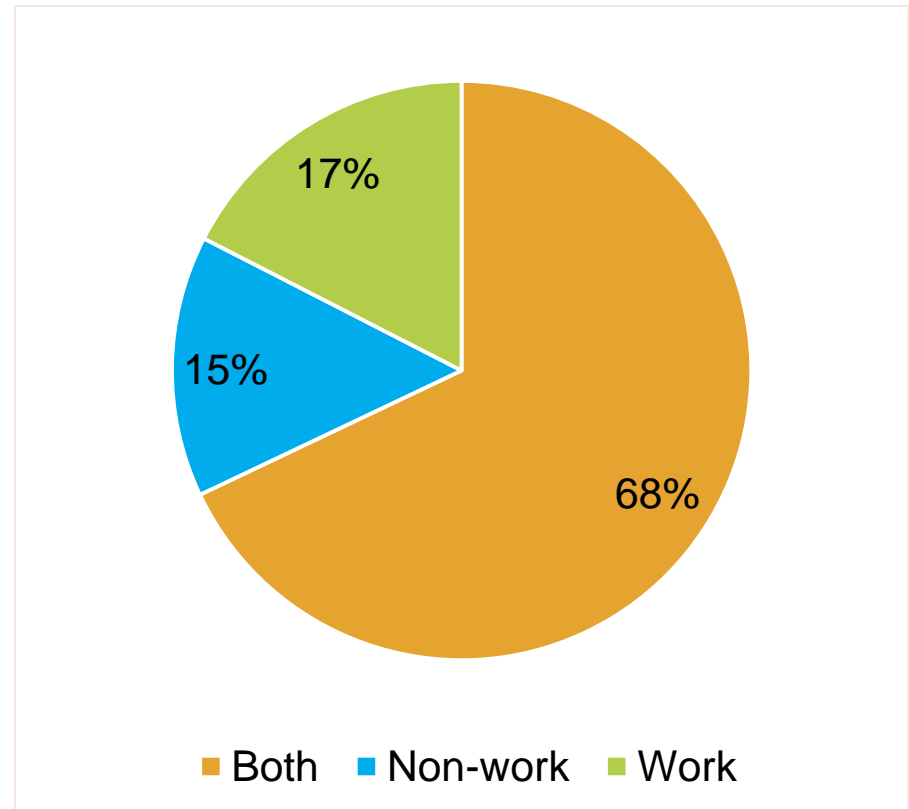
**Figure 5 Modal shift to auto-rickshaws**



# Impact by trip type

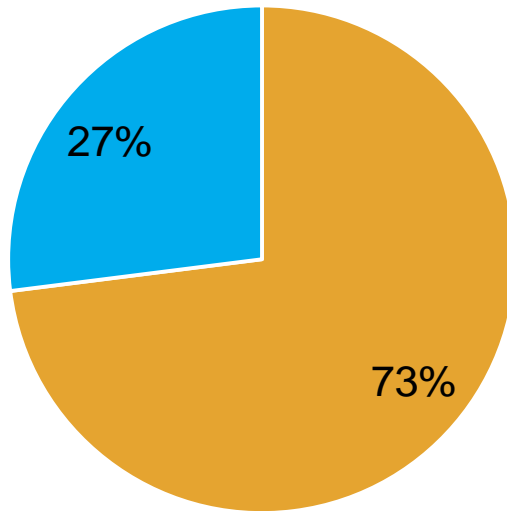
**Figure 6 Type of trips shifted from other modes to auto rickshaw**

- 68% of the respondents have shifted work and non-work related trips to auto-rickshaws, while 17% have shifted only work related trips to auto rickshaws.



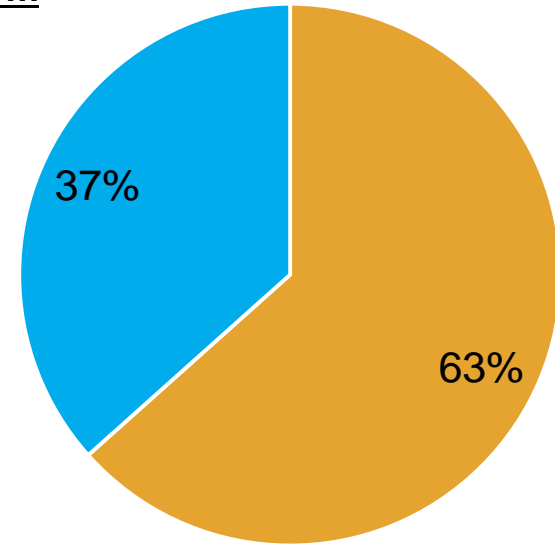
# Impact on deciding whether to buy a personal vehicle

Figure 7: Percentage of vehicle owners who are against buying of another vehicle after the fare reform.



■ yes ■ No

Figure 8: Percentage of people without vehicle who are against buying a vehicle after the fare reform

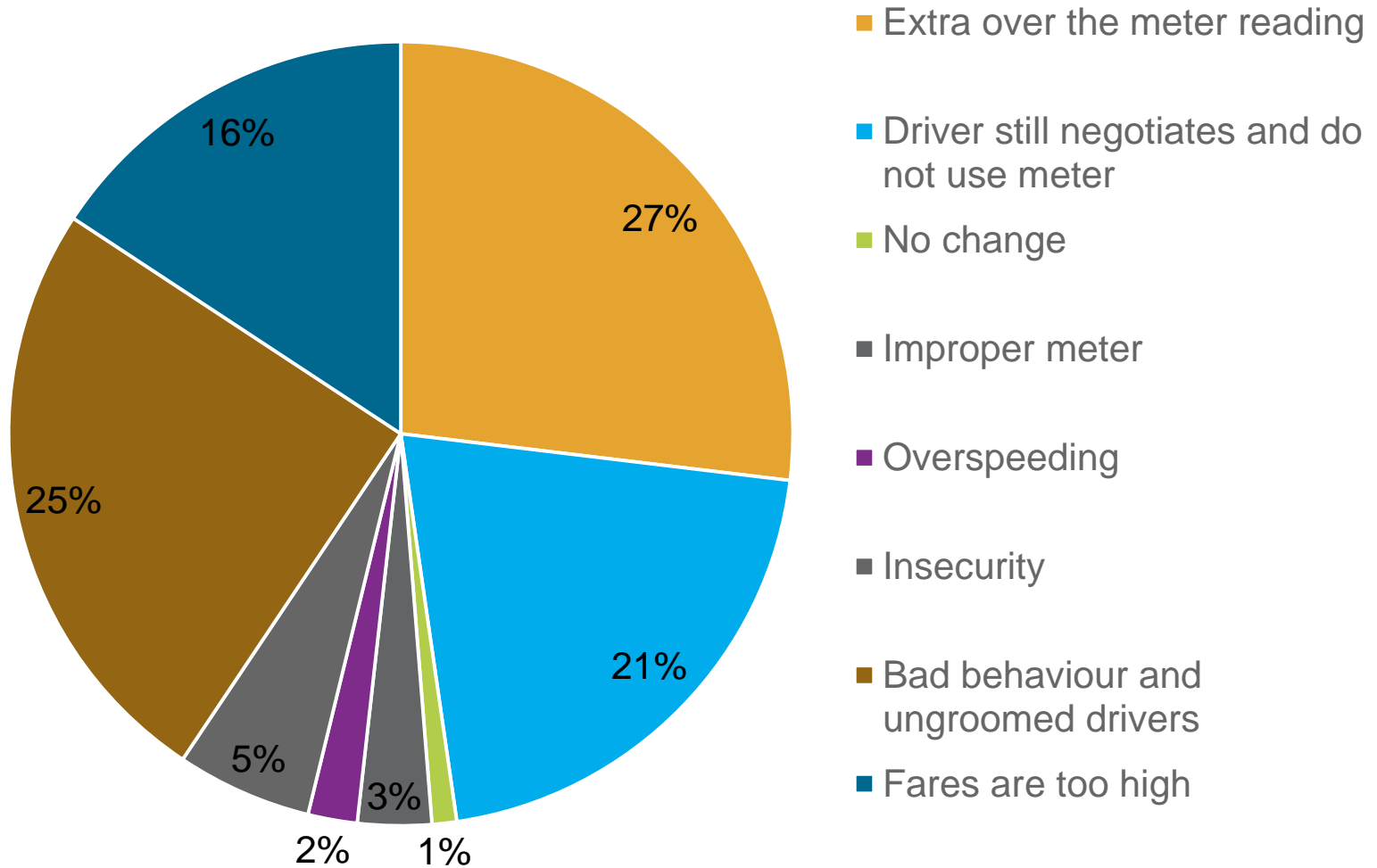


■ yes ■ no

- Almost 73% of the vehicle owners are against buying another vehicle while 63% of the respondents who currently do not own a vehicle have vouched for not buying a personal vehicle after the fare reform.

# Challenges faced by passengers

**Figure 9 Challenges faced by passengers**



# Auto-rickshaw driver survey : measuring impacts and challenges

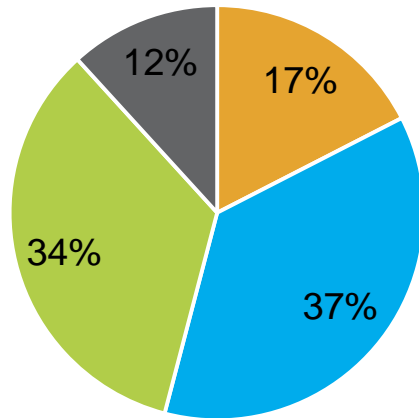
- 510 auto drivers were surveyed
- Railway stations (both at the Egmore and Central railway stations), Koyambedu bus terminus and busy commercial belts like T-Nagar, Triplicane, Nungambakkam, Parris, Saidapet.





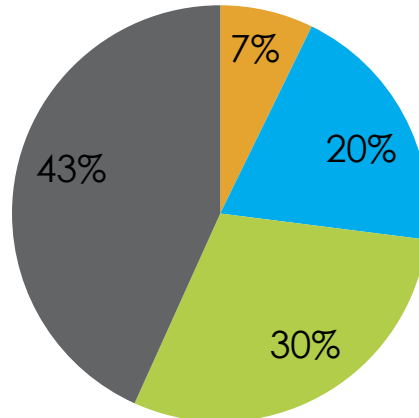
# Profile of auto-rickshaw drivers

**Figure 10 Age of the drivers**



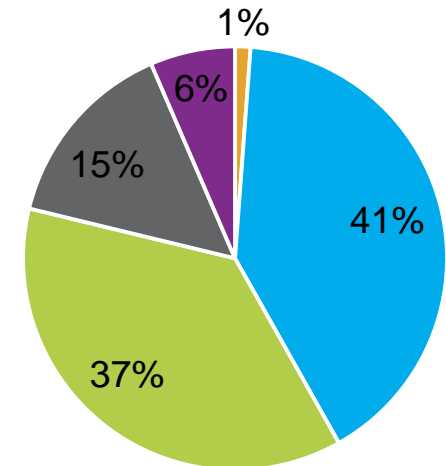
- 21-30
- 31-40
- 41-50
- 51 and above

**Figure 11 Number of Working Days**



- 15 to 20
- 21 to 25
- 26 to 29
- 30 to 31

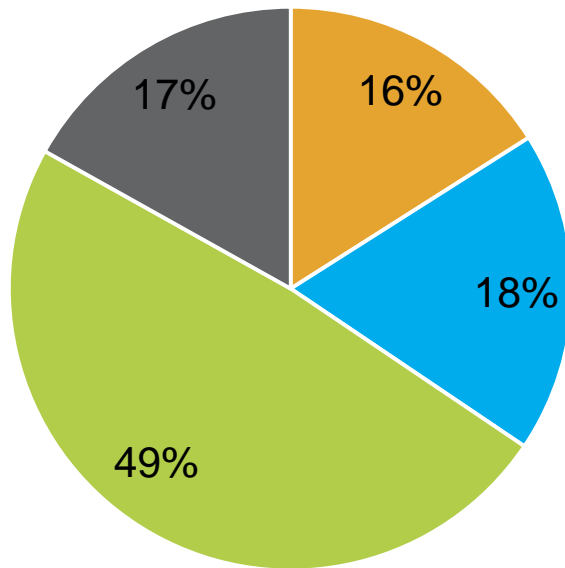
**Figure 12 Number of working hours**



- Upto 8 hours
- 8 to 12 Hours
- 12 to 14 Hours
- 14 to 16 hours
- More than 16 hours

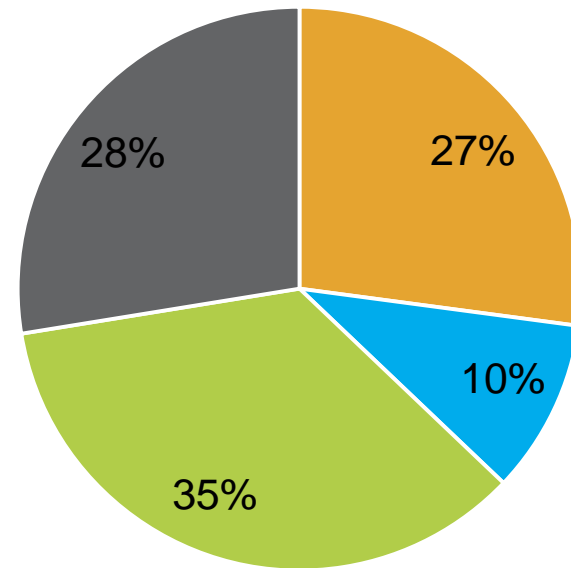
# Impact of fare reform on distance traveled

**Figure 13 Percentage break up of distance covered by auto drivers before reform**



■ 50- 75      ■ 76 to 99  
■ 100 - 119   ■ 120 to 150

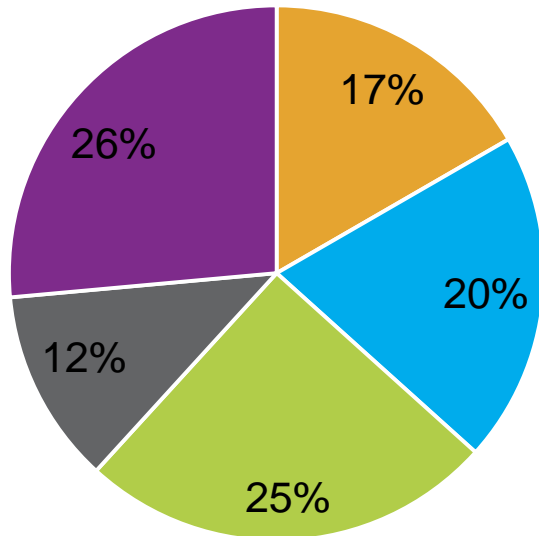
**Figure 14 Percentage break up of distance covered by auto after the reform**



■ 50- 75      ■ 76 to 99  
■ 100 - 119   ■ 120 to 150

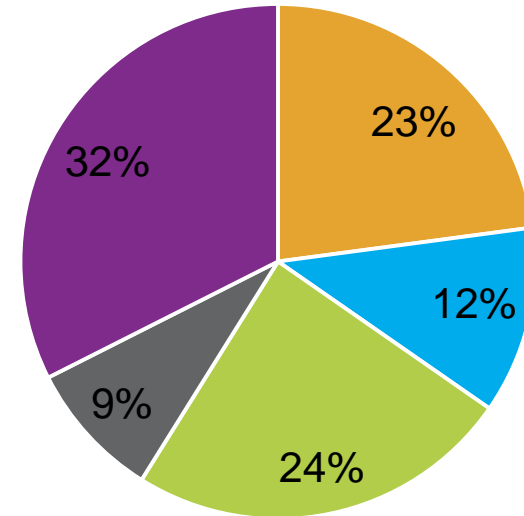
# Impact of fare reform on trips

**Figure 15 Percentage break up of drivers taking number of trips before reform**



■ Upto 10   ■ 11 to 15   ■ 16 to 20  
■ 21 to 25   ■ Above 25

**Figure 16 Percentage break up of drivers taking number of trips after reform**



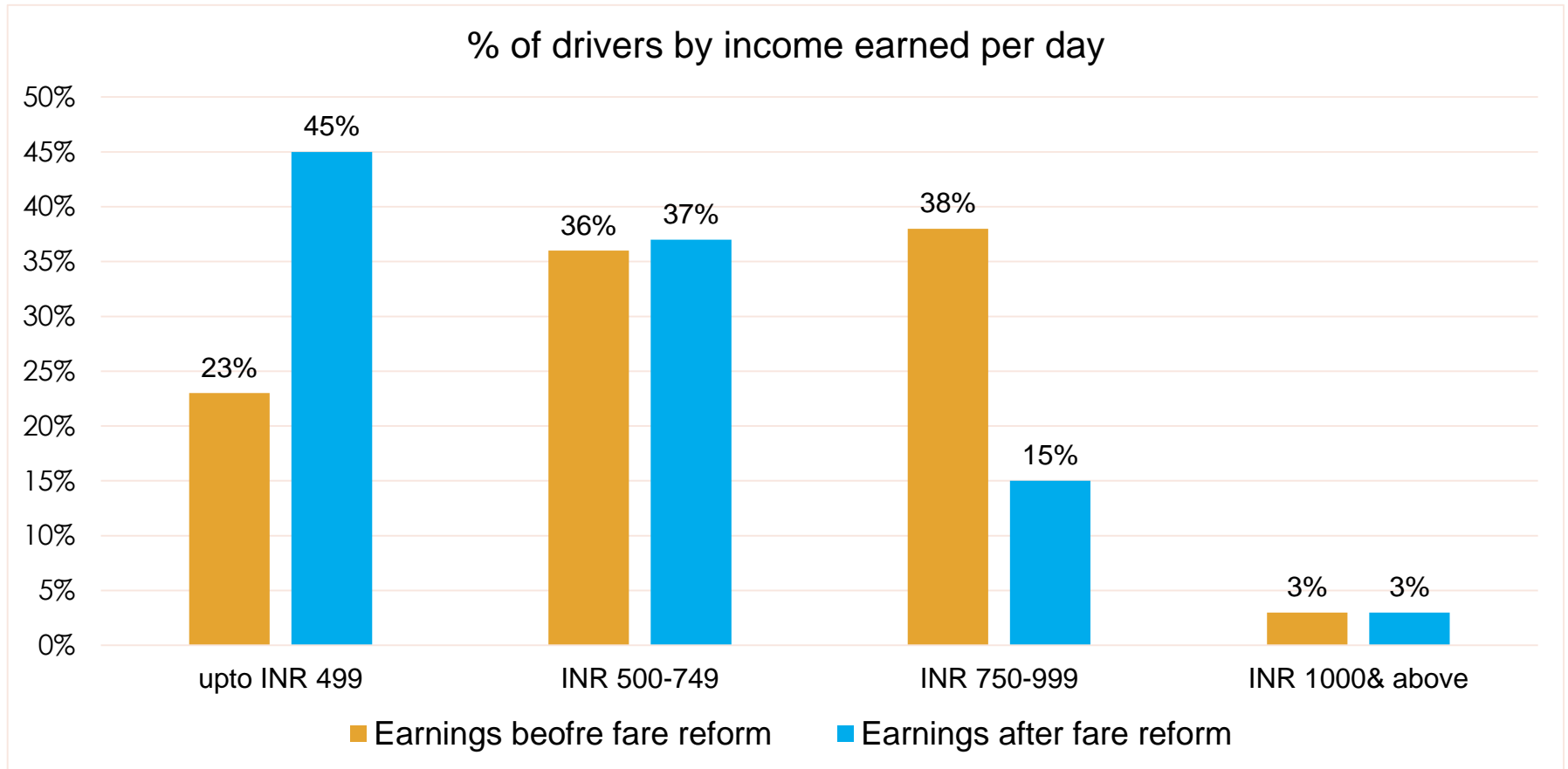
■ Upto 10   ■ 11 to 15   ■ 16 to 20  
■ 21 to 25   ■ Above 25

# Summary of impacts on distance traveled and trips

- Fare reform has had a disproportionate impact on distance traveled and trips
- While some drivers saw increase in average daily trips and trip distance, some section of drivers also saw a reduction in daily trips and trip distances
- This implies that while a share of drivers have adopted the fare reform, it is clear that there is also a share of drivers who have not adopted the reforms

# Impact on driver earnings before and after fare reforms

Figure 15: Comparison of Daily Earnings of Auto-rickshaw Drivers Before and After the Fare Reform

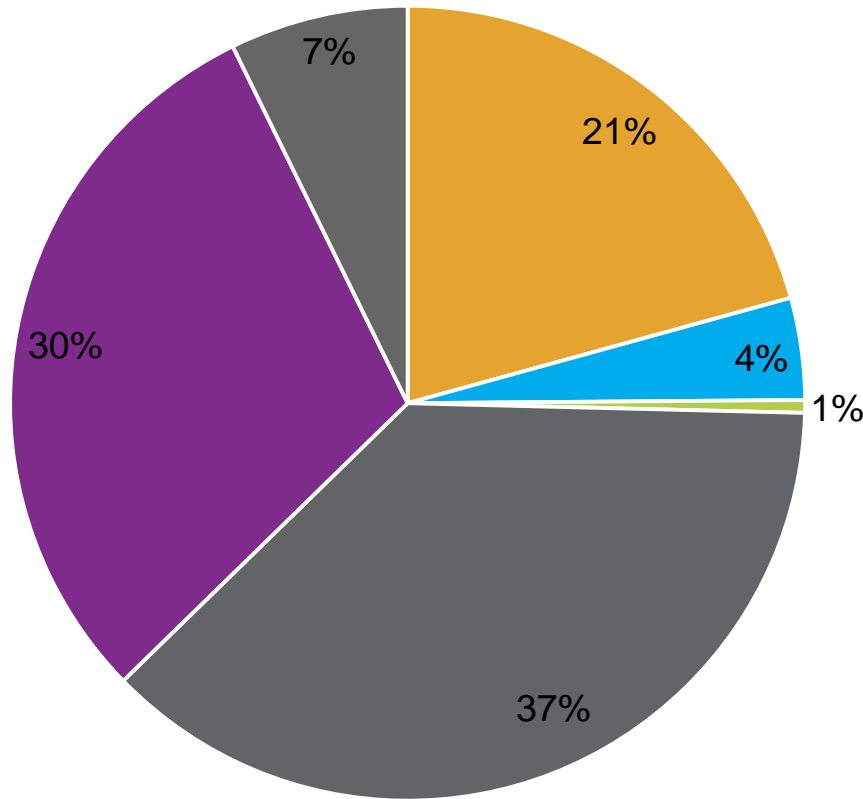


# Impacts of fare reforms on driver earnings

- As seen from the previous slide, the share of drivers making less than INR 500 per day has gone up after the reforms.
- The average earning as reported by the auto drivers has reduced by 24% from Rs 720 before reform to Rs 547 after reform.

# Challenges faced by drivers

**Figure 16 Challenges faced by the auto drivers**



- Competition from other autos, share autos, tata magic
- Bribe / Fees / Licences / Recalibration / Operating Cost is high
- More time per trip due to traffic
- Dead Trips
- Reduction in earning after the fare reform
- Fluctuating Petrol price

# Summary

Perspective	Impacts of Fare Reforms
Passengers	<ul style="list-style-type: none"><li data-bbox="407 305 1908 482">• <b>Impact on modal shift:</b> Nearly 80% of the respondents said they have <b>shifted some trips from other modes to auto-rickshaws</b>, as a direct result of the fare reform.</li><li data-bbox="407 501 1908 743">• <b>Impact on types of trips:</b> It is found that <b>68% of the respondents have shifted both work and non-work related trips to auto-rickshaws</b>, while <b>17% have shifted only work related trips to auto rickshaws</b>.</li><li data-bbox="407 762 1908 1005">• <b>Impact on buying a personal vehicle:</b> Almost <b>73% of the vehicle owners</b> are against buying another vehicle while <b>63% of the respondents</b> who currently <b>do not have a vehicle</b> have vouched for <b>not buying a personal vehicle</b> after the fare reform.</li></ul>



# Summary

Perspective	Impacts of Fare Reforms
Drivers	<ul style="list-style-type: none"><li>• <b>Impact on the distance travelled by the auto:</b><ul style="list-style-type: none"><li>• While some auto-rickshaws have seen increase in average daily trips and distance, a notable number of rickshaws have seen a reduction in these parameters</li><li>• This implies that while some have adopted the reforms, there are a sizable number of drivers who have not adopted the reforms.</li></ul></li><li>• <b>Impact on the earnings of the auto drivers:</b> The average earning as reported by the auto drivers has reduced by 24% from <b>Rs 720 before reform to Rs 547 after reform.</b></li></ul>

# Recommendations

Reform Area	Description
Revision of fare estimation model	<ul style="list-style-type: none"><li>• Current distance based model has limitations, as fares earned in peak periods are low, leading to overcharging</li><li>• Need to move to a distance-duration model, to effectively account for congestion during peak periods</li></ul>
Better enforcement to ensure meter-use by drivers	<ul style="list-style-type: none"><li>• Current enforcement practices have not been able to curtail rampant non-compliance to government regulated fares</li><li>• Need to enhance enforcement, through a priority based approach, based on identification of hot-spots of non-compliance, and strict fines and license appropriation of non-compliant drivers</li></ul>
Driver training	<ul style="list-style-type: none"><li>• Need for large scale driver-training, to counter the culture of informal fares and overcharging that has developed over decades</li><li>• Training to focus on the importance of quality of service, and adherence to meter-based fares</li></ul>
Regulation of other modes of transport	<ul style="list-style-type: none"><li>• Need to regulate other modes such as share-autos and share-taxis, which are currently competing with the regular auto-rickshaws through lower fares</li></ul>
GPS meters	<ul style="list-style-type: none"><li>• Installation of GPS meters on all auto-rickshaws to improve vigilance and enforcement</li></ul>

**Thank You**