# Recent Innovations in Fares



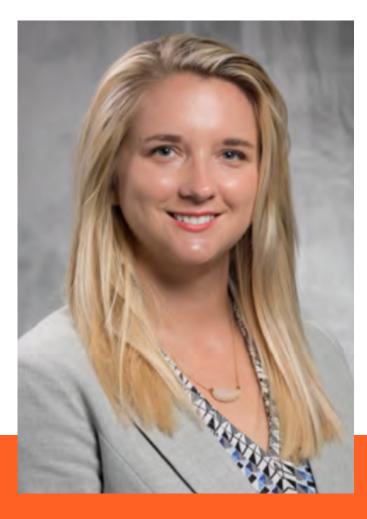
APTA ELP Group 7



# Emerging Leaders Group



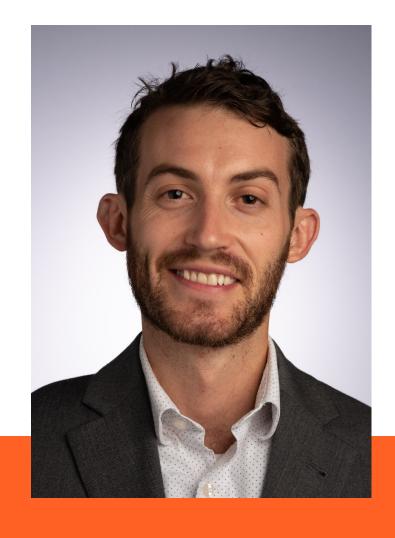
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## Outline

Motivation and Methods

Survey

Results

Case Studies

Free fares

Fare capping

Mobile wallet

# Ridership

### Annual Bus Ridership (millions)

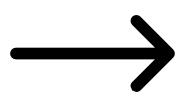


Source: National Transit Database

## 

## Motivation

Implementation of more advanced fare collection systems
Smart card AFC
Open payment
Account-based ticketing



Operations funding

Declining ridership

Emphasis on user experience

Trend toward simplifying fare structure



Exploration of novel fare policies and products

## Graphic

Adapted from Chu and Lemone [2020].

## **V**

## Methods





Group 7 Methodology
Data collection
Survey
Survey Questions

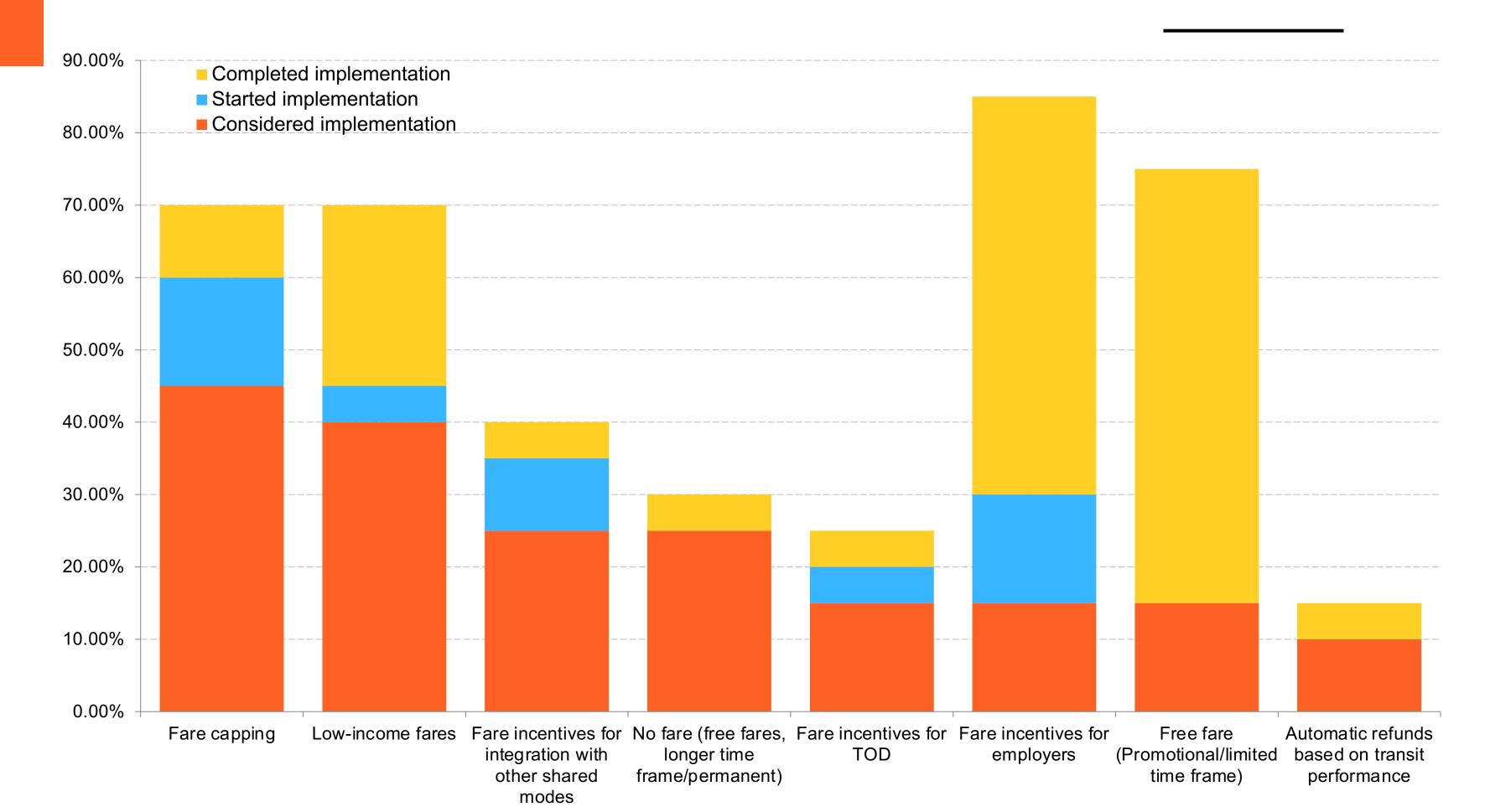




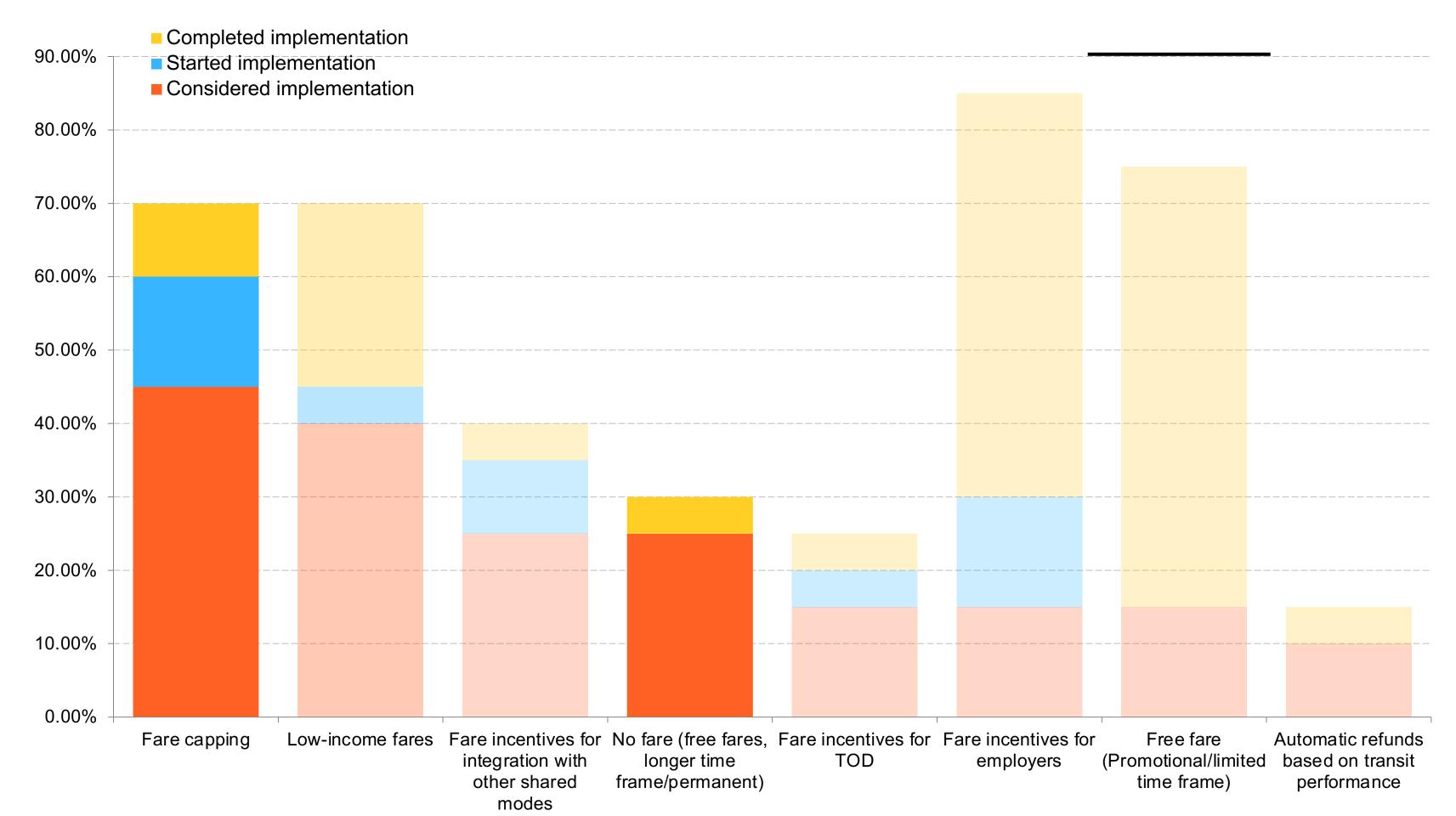
## **Map of Agencies**



## **SURVEY**



## SURVEY RESULTS



## Fareless Transit

Quicker Boarding

Passenger Savings

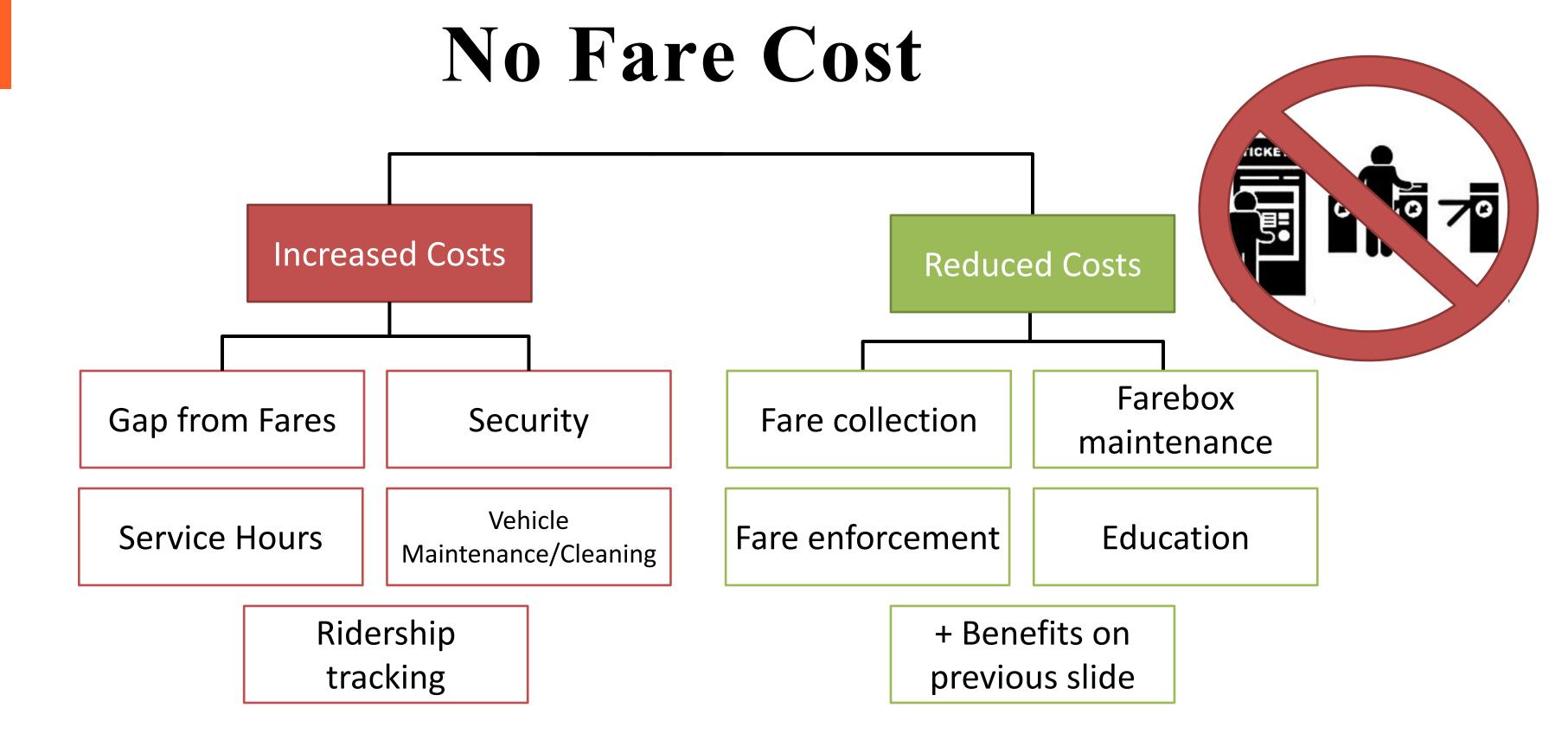
**Benefits** 

Reduces Complexity

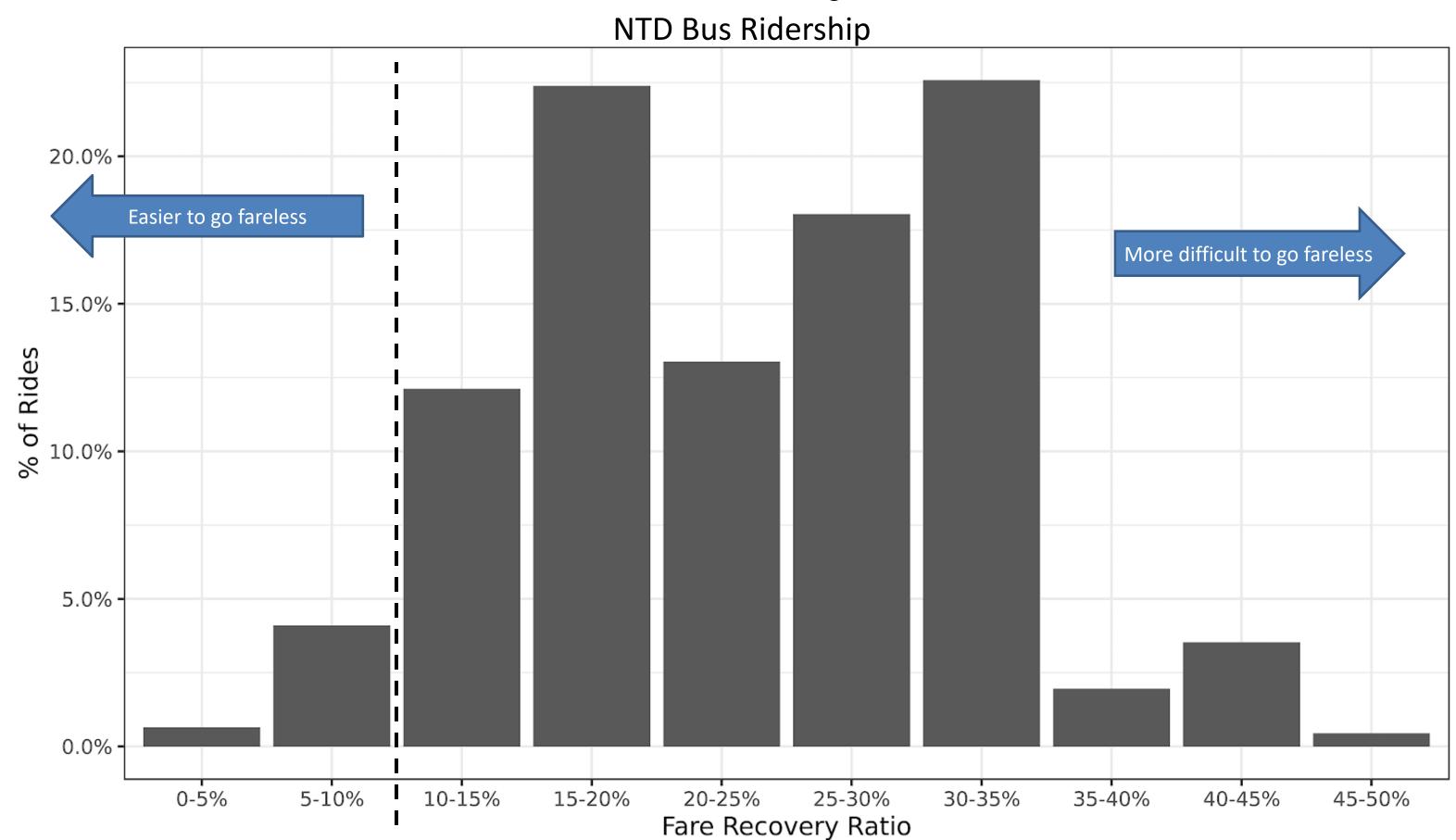
Environment (Mode Shift)







## Fare Recovery Ratio







## FARELESS TRANSIT ABROAD

## RESULTS OF FARELESS TRANSIT IN TALLINN



### Performance vs. Goal

- Short-term ridership: 3% increase

- Mid-term mode choice: 14% increase

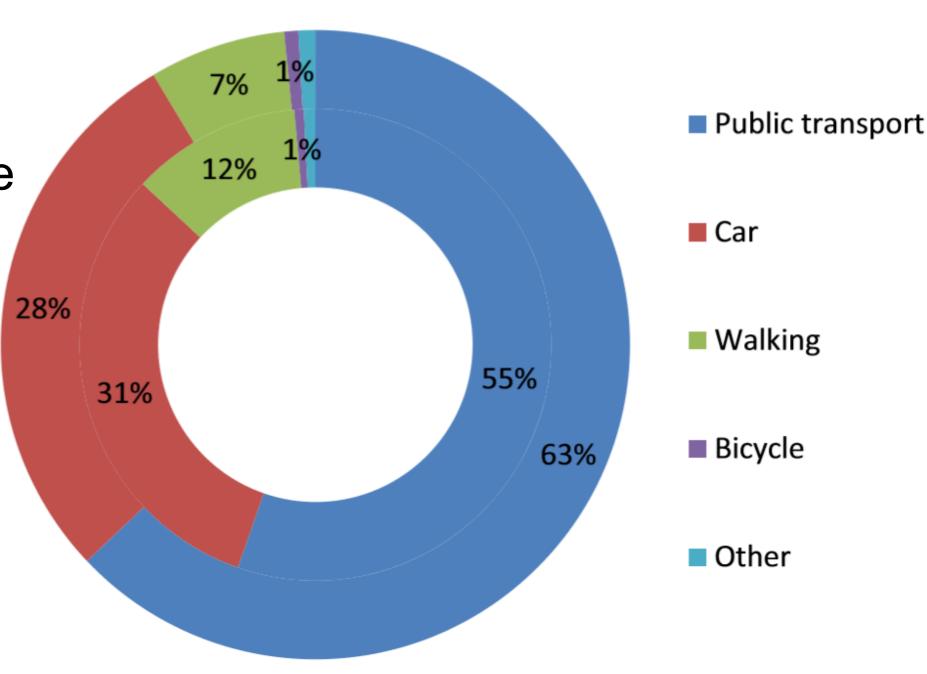
- Trip generation for low-income and unemployed residents

Positive effect on public perception of

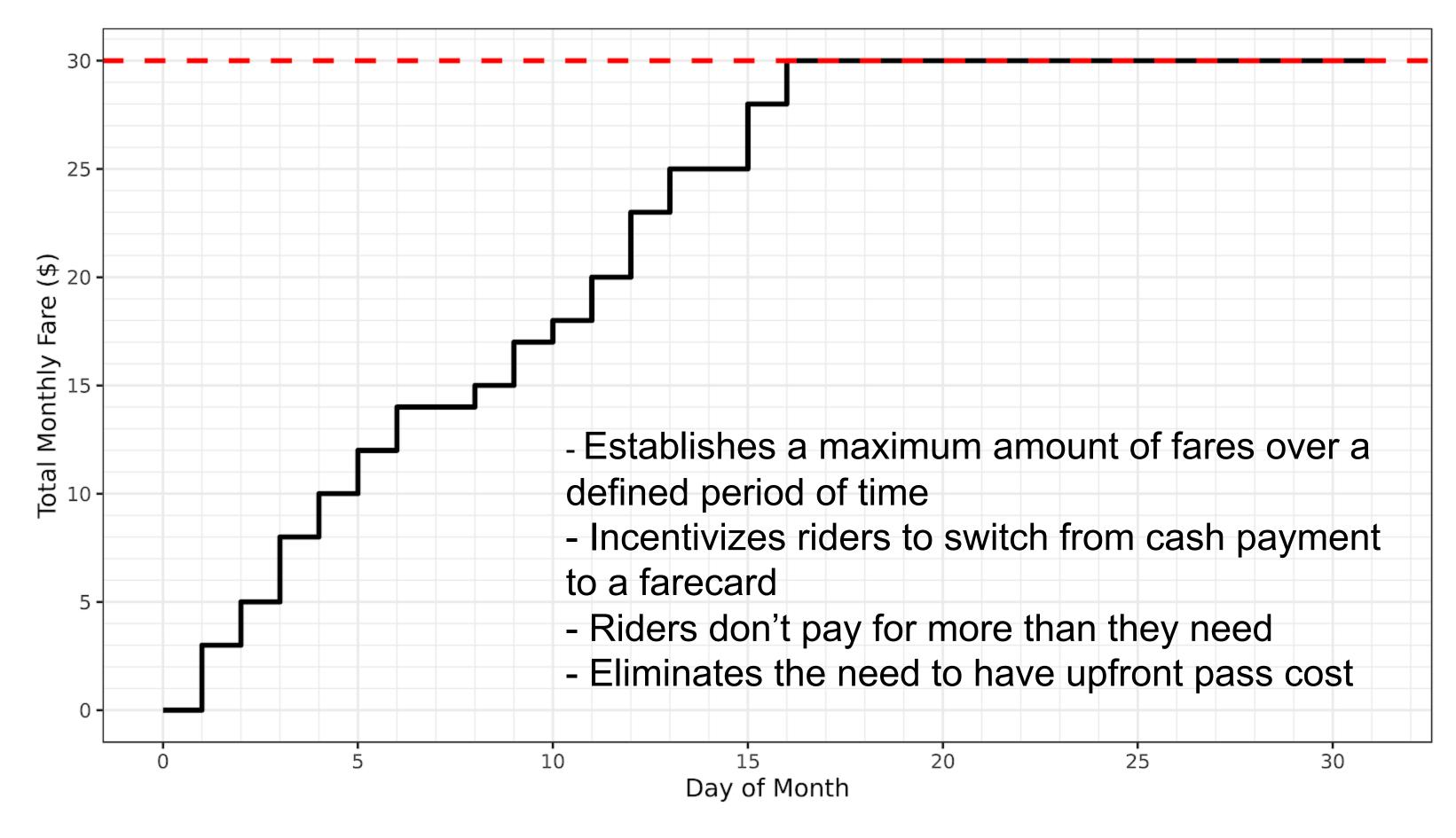
- Individual mobility
- Tallinn as a whole

### Caveats

- Initial high mode share
- Large fraction of rides were already free



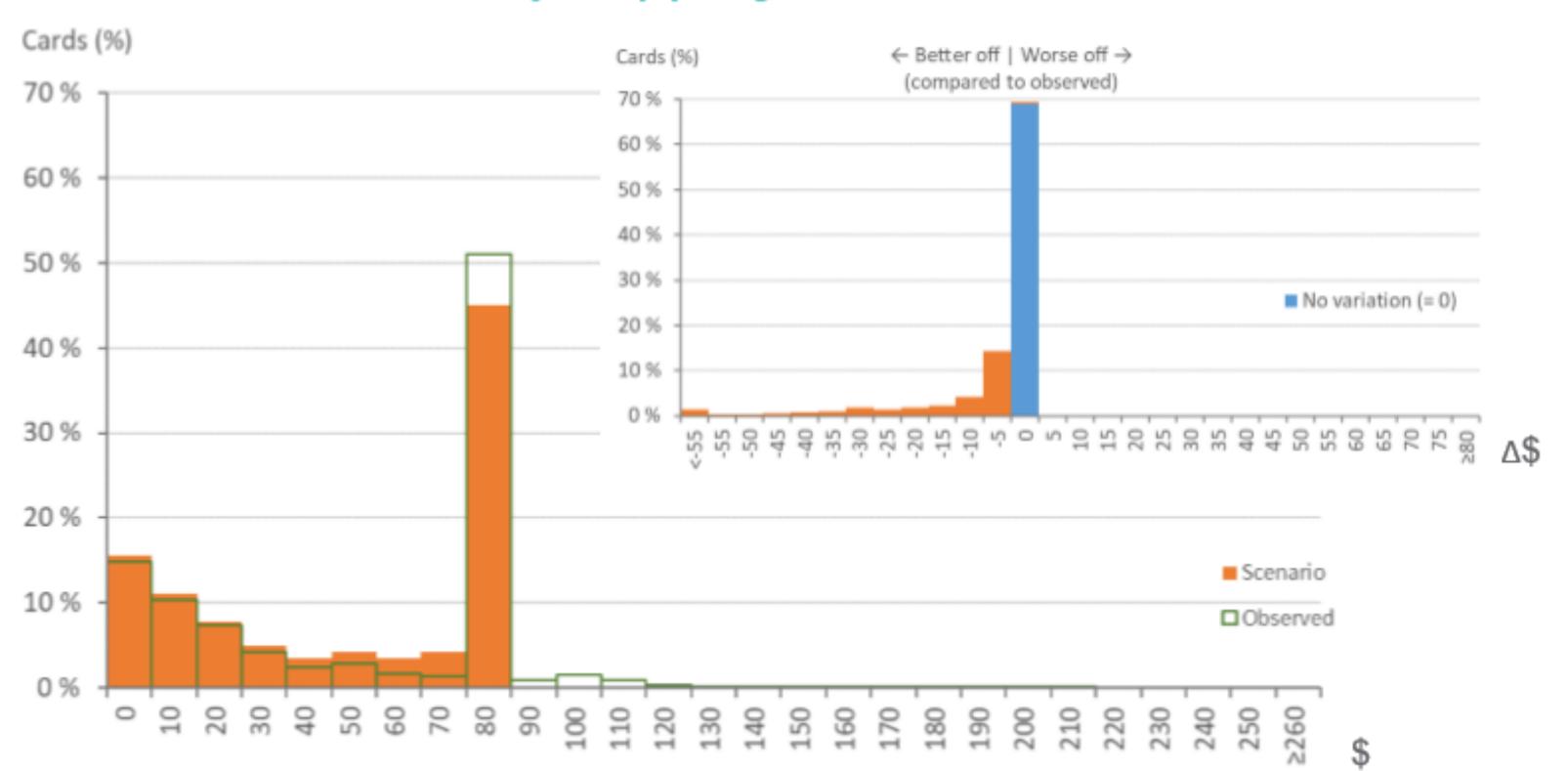
### **FARE CAPPING**





## SCENARIO 6 FARE CAPPING

## Scenario 6: + 30-day capping





What did they buy? Who? How much savings? Mean Share of Mean Monthly Short-Trip-Share Total overall savings observed of saving based pass term tickets cards (M\$) fare savings passes per (%) (\$) card (\$) only (%) X 31.6 58.0 1.09 82.00 24.72 0.31 65.00 X 15.23 14.5 16.4 34.2 3.22 X 8.2 0.15 31.88 X 0.18 X 11.5 9.8 63.53 11.44 0.10 88.18 X X 11.57 6.4 5.5 0.03 X X 1.6 1.7 93.64 14.35 X X 0.01 107.95 30.09 0.2 0.4 13.47 100.0 100.0 1.89 60.91 Total



### **CONCERNS**

- Uncertainties on passenger revenue
- Cost of fare technology upgrade
- Inequitable benefits across riders





Payment card information stored on a mobile device.

## Benefits:

- Faster boarding
- Take advantage of fare capping

Things to Consider for Implementation:

- Infrastructure
- Fare policy updates

## MOBILE WALLET

What is it?



The impact on many of the topics in this presentation

Many agencies suspending fares:

- 1) reduce interaction with operator
- 2)reduce barriers for essential travel purposes

Will some agencies keep suspended fares on a permanent basis?

Re/Solidifying the importance of public transit Less ridership based

Will this ultimately change how agencies think about fare collection?





# Thank you

**Matt Broughton** 

**Zachary Sunderland** 

**Timothy Ruggles** 

**Kelly Coughlin-Tran** 

