



»My ways«

Mobile application for collecting data on daily trips



Apolonija Oblak Flander, Senior Counsellor, Head of Section

Darka jezeršek Žerjal, Counsellor

Statistical Office of the Republic of Slovenia

Environmental Statistics Division

Transport, Tourism and Information Society Statistics Section



Introduction

- Pilot application developed within the Eurostat project "*Passenger mobility statistics and road traffic statistics*"
- To test more modern methods of data collection
 - How to include the "modern" method of data collection in the statistical process?
 - How to prepare an application?
 - How to introduce the application to the public to use it?
 - Is it possible to supplement the classical data collection with this new mode of data collection?
 - Whether there is a potential to use an app for data collection instead of traditional data collection in the future?

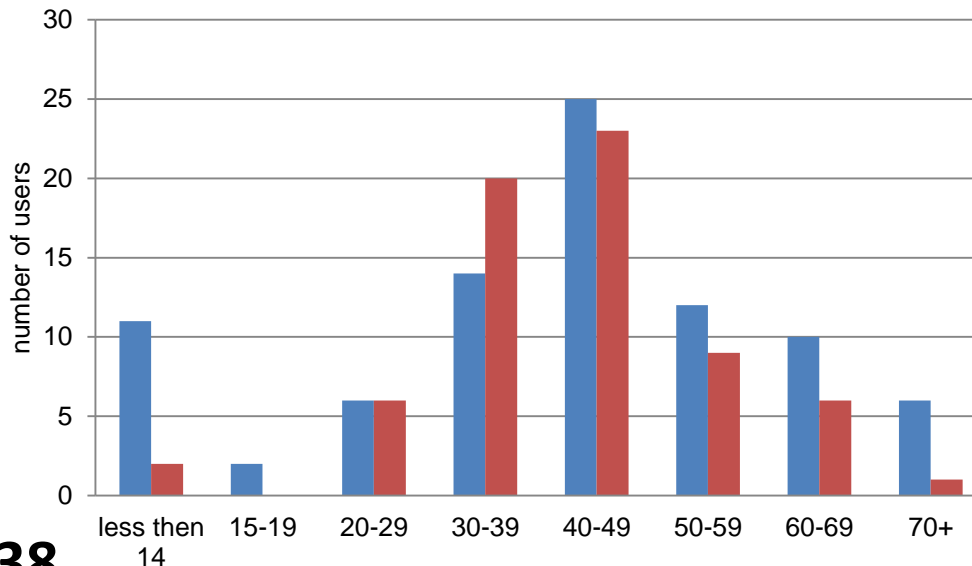
Methodology

- Purpose of application: to collect data about trips that are made by a single user at a specific time
- Available for Android and iOS mobile operating systems
- Data collection: October–December 2017
- Anonymous recording of data (sex of the user, year of birth)



First results

- Number of users: **153**



- Total number of trips: **3,938**
- Total length of all trips: **26,606 km**

	Working day	Non-working day	All days
Number of trips per person per day	2.86	2.75	2.84
Travel distance per person per day (km)	42.79	38.32	41.92
Travel time per person per day (min)	79.75	81.06	80.00



Advantages of data collection with an app

- **Data capture**
 - providing accurate spatial and time data
 - "real-time" continuous measurement
 - time efficiency – a faster data collection process
- **Improved data quality**
 - "objective" rather than subjective measurement
 - less recall errors (esp. for short trips)
 - less data entry errors
- **Reduction of burden on respondents**
- **Cost-effectiveness – reducing research costs**
 - faster, less expensive data collection on a large number of units

Challenges of data collection with app

- **Choice of respondents**
 - sampling bias – Who owns the device or uses technology?
 - actual willingness to participate – How to motivate/encourage people to participate?
- **Consent, informing, compliance**
 - application installation – caution with access authorization
 - informing with General rules and Instructions for users
 - systematic bias – user can turn off the tracking
- **Problems with the measurement and technical capabilities of mobile phone**
 - missing data (technical errors, non-compliance)
 - quality (reliability) of measurement – accuracy of GPS
 - the consumption of a cell phone battery depending on the desired accuracy



Challenges of data collection with app

- **Analysis of data**
 - trust in the collected data
 - raw data are not directly usable
 - methodological challenges - finding appropriate observations in a large amount of data
- **User privacy, disclosure risk**
 - confidence of users in the privacy of data collection



Thank you for your attention.

