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Traffic behavior of residents

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TRAFFIC BEHAVIOR

What is transportation behavior?

Why is this important?

TRAFFIC BEHAVIOR

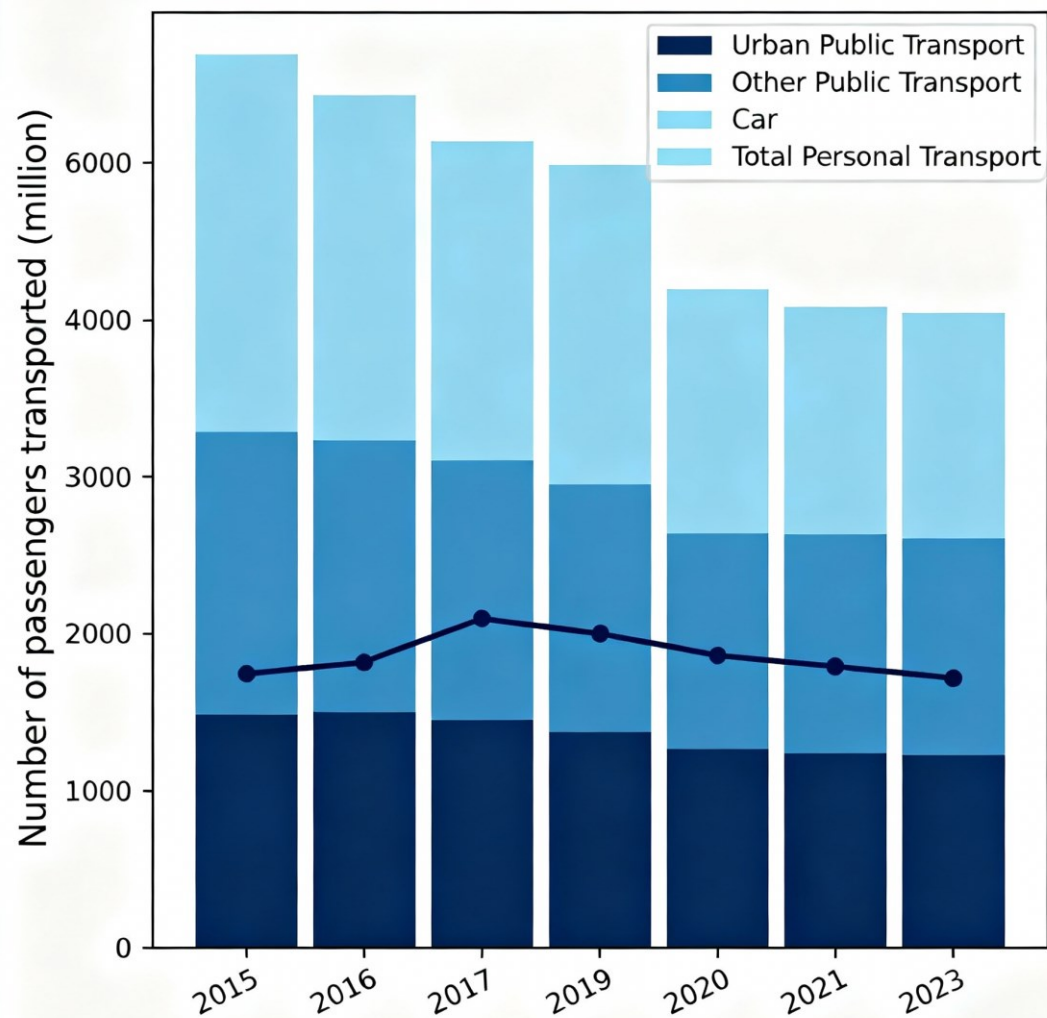
What is transportation behavior?

- ❑ Summary of people's decisions and activities when moving in space
- ❑ Key elements
 - Choice of means of transport
 - Route selection
 - Purpose of the trip
 - Frequency and travel time

Why is this important?

- ❑ Urban planning
- ❑ Transport capacity
- ❑ Sustainability and the environment

PASSENGER TRANSPORT IN THE CZECH REPUBLIC



FACTORS AFFECTING TRAFFIC BEHAVIOR

Individual

- Age
- Sex
- Income
- Health
- Preferences

Social

- Household
- Family
- Habits
- Working mode

FACTORS AFFECTING TRAFFIC BEHAVIOR II

Spatial

- Transportation availability
- Distance
- Infrastructure quality

Economical

- Fare price
- Cost of a passenger car
- Parking costs

FACTORS AFFECTING TRAFFIC BEHAVIOR III

Political

- City/county/state transportation policy
- Support for public transport, active mobility (pedestrian and cycling)
- Car regulation (tolls, low-emission zones)

Environmental motivation

- Climate
- Own health

Other external influences

- Weather

TYPES AND PURPOSES OF ROADS

Commuting to work and school

- The most regular in terms of means of transport, time, route, ...

Shopping and services

- Great variability, also depending on the type of service or goods

Leisure and recreational activities

- Both holidays and trips, or after-work leisure activities

Business trips

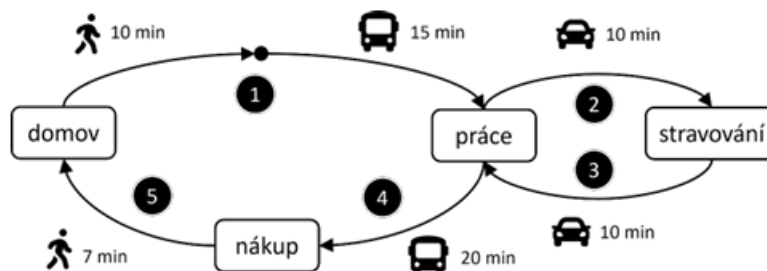
SURVEYING TRAFFIC BEHAVIOR

Questionnaires

- Personal
- Online

Travel diaries

- Mostly together with questionnaires
- Record of all trips made (possibly with additional information) during a defined period, usually several days



TRAVEL DIARY, CZECH REPUBLIC ON THE MOVE

CESTOVNÍ DENÍK, osoba: [_____] č.o.: [_____]

DID: [_____] GID: [_____] TAZ: [_____]



Vyplňte prosím všechny CESTY, které jste během SLEDOVANÉHO DNE uskutečnili. Uvedte i PĚŠÍ CESTY a CESTY DOMŮ. Cestou míníme pohyb za nějakým účelem definovaným níže.

Kdy vaše cesta začala?

Jaké DOPRAVNÍ PROSTŘEDKY jste v průběhu této cesty použil(a)? Odhadněte prosím, kolik času (v minutách - např. 7 min) jste v každém z prostředků strávil/a.

Ve sledovaný den [__] . [__] . 201_ jsem:						
<input type="radio"/> NECESTOVAL(A) → Z jakého důvodu? [_____] Děkujeme, to je vše!						
<input type="radio"/> CESTOVAL(A) → Kde začala vaše cesta? <table border="0" style="width: 100%;"> <tr> <td style="width: 60%;"><input type="radio"/> V místě bydliště</td> <td style="width: 40%;">[_____] Obec</td> </tr> <tr> <td><input type="radio"/> Jinde</td> <td>[_____] Ulice, číslo</td> </tr> </table>			<input type="radio"/> V místě bydliště	[_____] Obec	<input type="radio"/> Jinde	[_____] Ulice, číslo
<input type="radio"/> V místě bydliště	[_____] Obec					
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1. CESTA	2. CESTA	3. CESTA				
▶ START	▶ START	▶ START				
🕒 KDY JSTE VYRAZIL(A)? [____] h [____] min	🕒 KDY JSTE VYRAZIL(A)? [____] h [____] min	🕒 KDY JSTE VYRAZIL(A)? [____] h [____] min				
🚗 PROSTŘEDKY	🚗 PROSTŘEDKY	🚗 PROSTŘEDKY				
[____] min, Pěšky	[____] min, Pěšky	[____] min, Pěšky				
[____] min, Kolo	[____] min, Kolo	[____] min, Kolo				
[____] min, Městský bus	[____] min, Městský bus	[____] min, Městský bus				
[____] min, Regionální bus	[____] min, Regionální bus	[____] min, Regionální bus				
[____] min, Dálkový bus	[____] min, Dálkový bus	[____] min, Dálkový bus				
[____] min, Trolejbus	[____] min, Trolejbus	[____] min, Trolejbus				
[____] min, Tramvaj	[____] min, Tramvaj	[____] min, Tramvaj				
[____] min, Vlák	[____] min, Vlák	[____] min, Vlák				

CZECH REPUBLIC ON THE MOVE

Nationwide survey of traffic behavior

Implemented 2017-2019

Sample of 10,000 households

Being investigated

- Sociodemographic data
- Place of residence, workplace
- Driving license, fare subscription and VHD discounts
- Vehicle availability (including characteristics – vehicle type, fuel type, number of seats)
- Travel on the decisive day – for each trip, the place and time of the start of the trip, the time spent in each means of transport, the purpose of the trip, the estimated length of the trip, the place and time of the end of the trip were determined

SURVEY OF TRAFFIC BEHAVIOR II

- GPS and mobile applications
- Big data
 - Mobile operator data, traffic applications (Google, Waze)
- Automatic traffic counting, cameras, sensors
- Advantages
 - Objective data
 - Large range
- Disadvantages
 - Ethics
 - Privacy
 - Acquisition costs for research

TRAFFIC BACKUP ANALYSIS

➤ Modal split

- The share of individual transport modes in total transport in a certain area and time

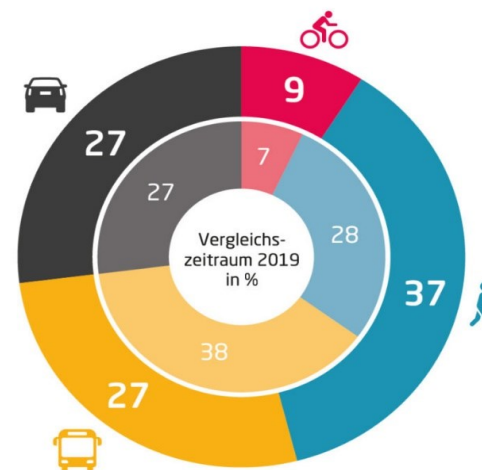
➤ Average trip length

➤ Time structure of trips

- E.g. peak vs. off-peak

Modal Split 2020

So waren die WienerInnen unterwegs (in %):



Quelle: Wiener Linien

USE OF KNOWLEDGE ABOUT TRAFFIC BEHAVIOR

- Transport infrastructure planning
- Development of public transport, including urban mass transit
- Cycling and pedestrian transport
- Environmental and health impacts

TASK

Design your own travel diary – see the example of Czech Republic in Motion

Record your journeys during a weekday

Create a transportation distribution chart

Discuss when and why another transportation option would be appropriate.