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# Towards more effective urban transport policy: Understanding the travel behavior of Tbilisi residents

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# Overview

- Goal and study questions
  - Methodology and Survey
  - Survey results- Demographic comparison
  - Survey results- Public transport users
  - Survey results- Car users
  - Travel behavior changes
  - Short distance trip preference
  - Key factors in determining transport mode decision
  - Transport problems and solutions
  - Recommendations
  - Future transport vision
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# Goal

To better understand the attitudes and behaviour of the Tbilisi population towards public and private transport, to allow more effective urban transport management policy

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# Evolving perspective on transport research

- Previously focused on economic calculations and engineering analyses
  - Now focused also on social norms and habitual behavior, which depends on:
    - ❑ individual characteristics and lifestyle
    - ❑ the type of journey
    - ❑ the perceived service performance of each transport mode and situational variables
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# Cars in Tbilisi

- In Soviet times, 15 cars per 1000 inhabitants
- By 2000, 70 vehicles per 1000 inhabitants
- By July 2005 there were about 100 vehicles per 1000 inhabitants in Tbilisi



# Public transport

## ■ Eliminated:

- ❑ Trams
- ❑ Trolley buses

## ■ Remains:

- ❑ Metro
- ❑ Bus
- ❑ “Marshrutka” mini-buses

## ■ Current situation:

- ❑ No integrated long-term transport planning for Tbilisi
- ❑ Weak public transport sector
- ❑ Insufficient traffic management system
- ❑ Lack of coordination between different institutions that could improve urban transport



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# Methodology and Survey

- Qualitative survey: search of existing literature; discussions with transport authorities; dialogue with Tbilisi municipal authorities
- Quantitative survey: questionnaire of 322 Tbilisi transport users

Questionnaire survey: intercept survey, convenience sampling

- Car users: n=159

**Residents who drove a car at the time of survey**

- Public transport users: n=163

**Residents who rode public transport at the time of survey**

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# Study questions

- Do car users use public transport or not?
  - Do they feel comfortable with the way they live, do their cars give them self confidence?
  - Do they feel frustrated and powerless when they take public transport?
  - If public transport options are more reliable and frequent, will they be used more often?
  - If public transport provides good enough service, will people be encouraged to use public transport?
  - What factors would encourage people to use public transport more often?
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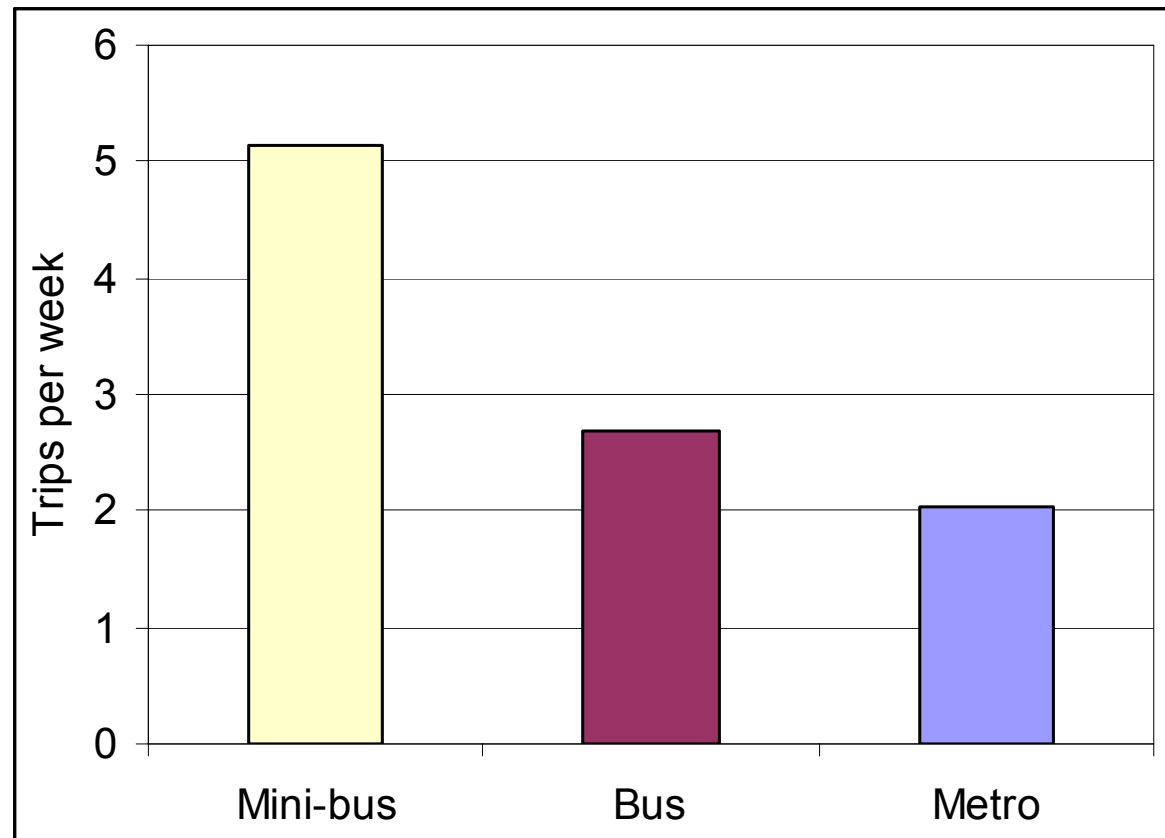
# Survey results

## *Demographic comparison*

Variable	Characteristic	PT users %	Car users %
Age	≤ 23	19	12
	24-35	31	39
	36-49	26	37
	50-64	15	12
	≥65	8	0
Gender	Female	78	27
	Male	21	72
Occupation	Working in private sector	51	62
	Working in the public sector	15	28
	Student	13	2
	Pensioner	9	0
	Unemployed	10	7
Monthly personal income	≤ 200 lari	48	10
	200-500	40	41
	500-1000	10	36
	≥1000 lari	1	12

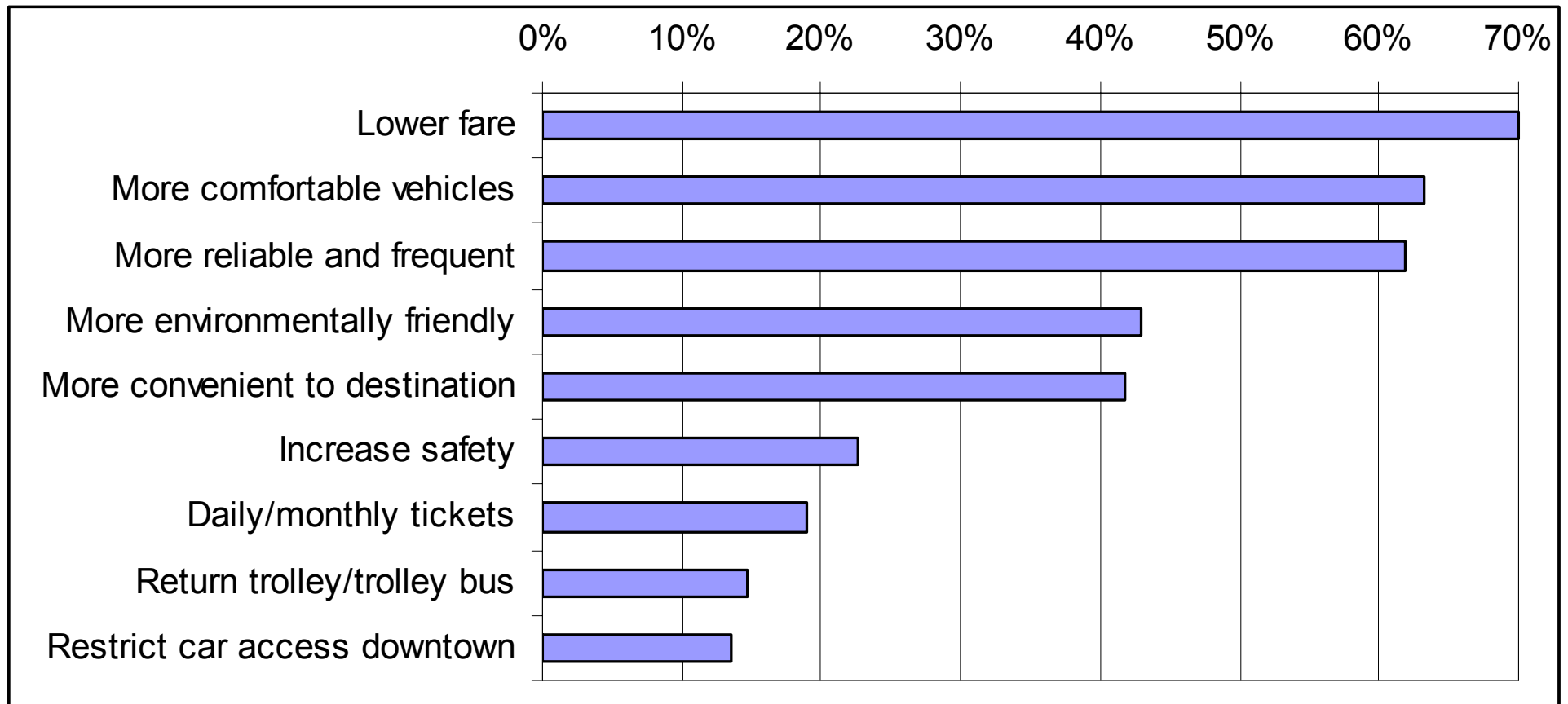
# Public transport users

Trips per week, by mode



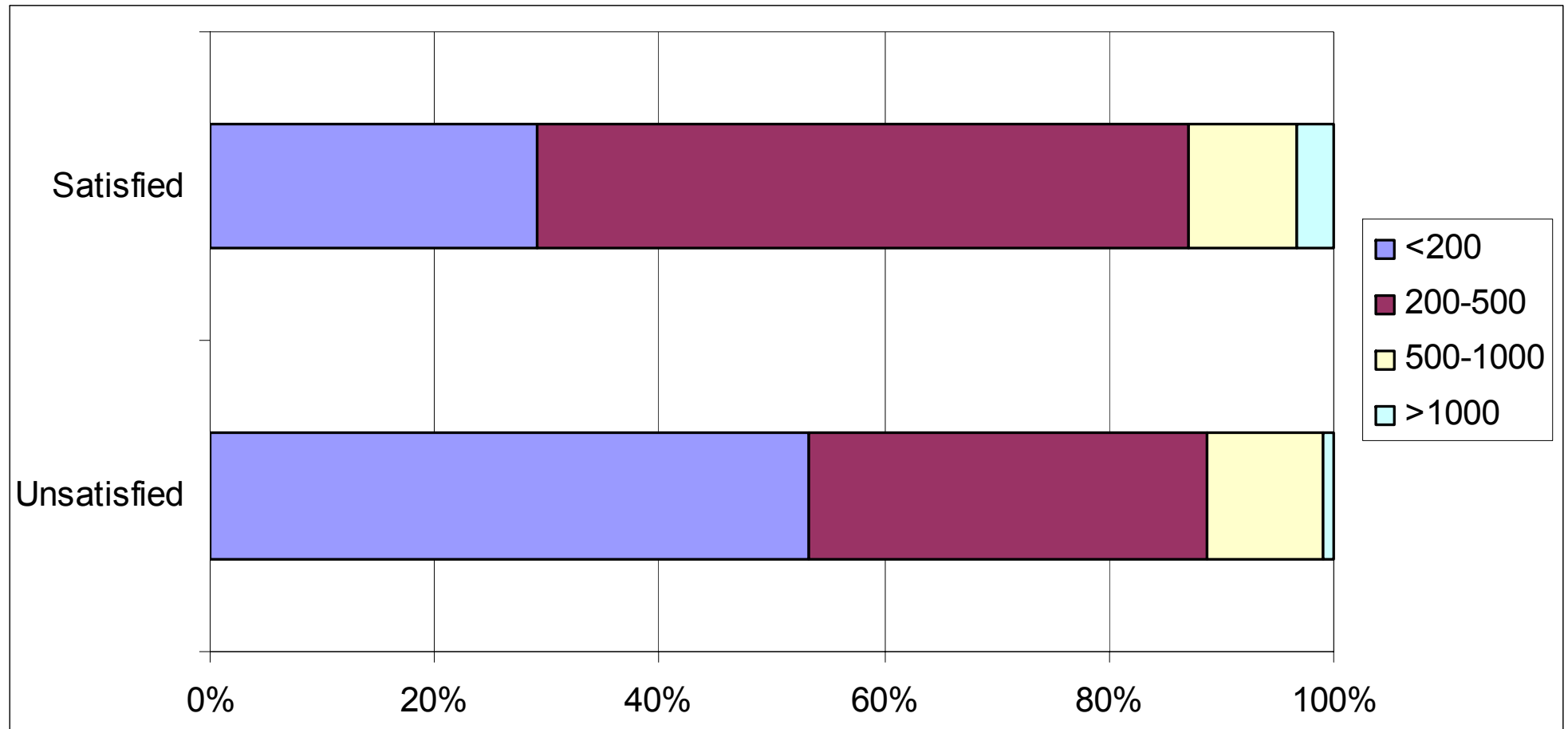
# PT users: Service

Main concerns of PT users



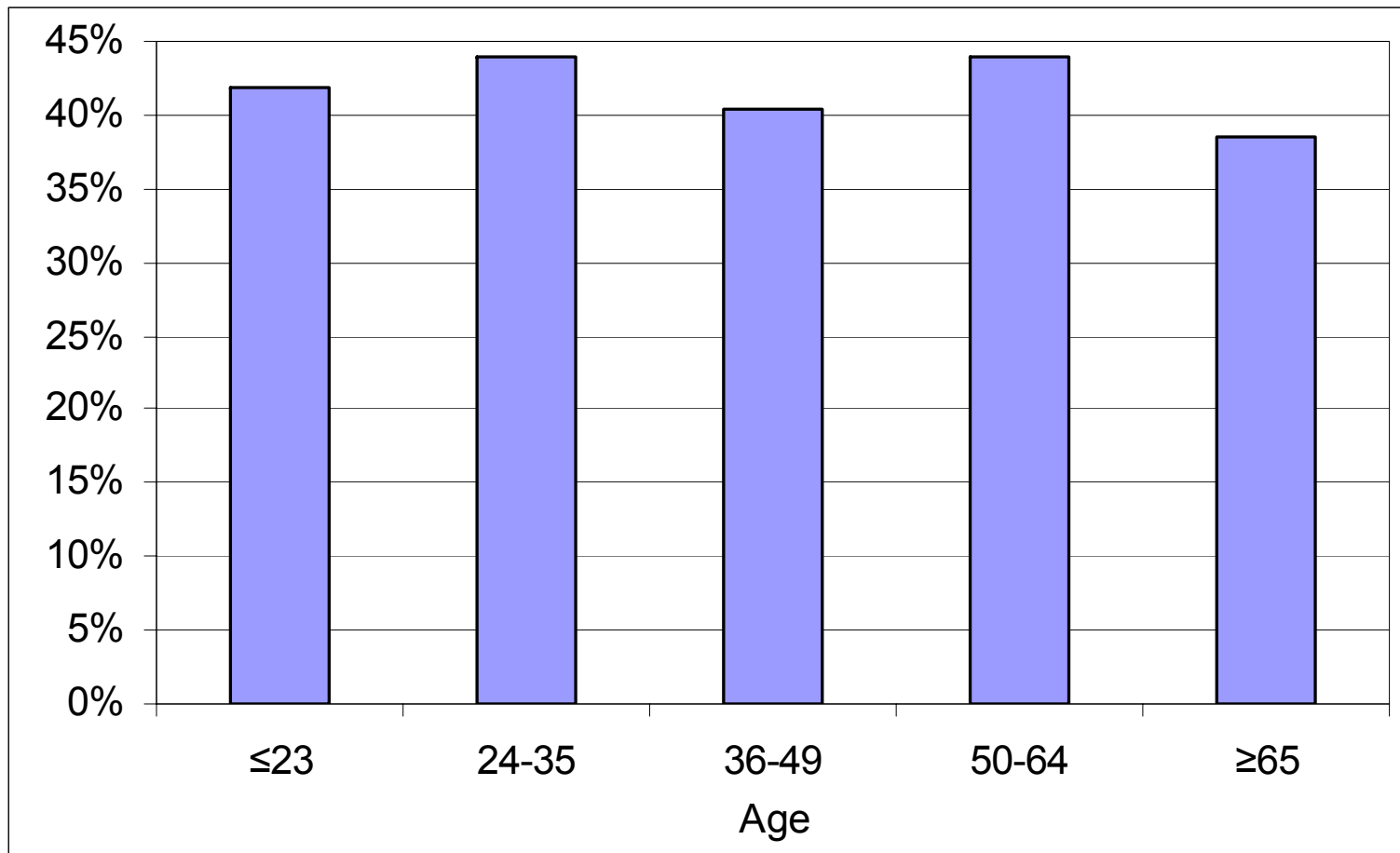
# PT users: Public transport price

Satisfaction with PT price, by income level



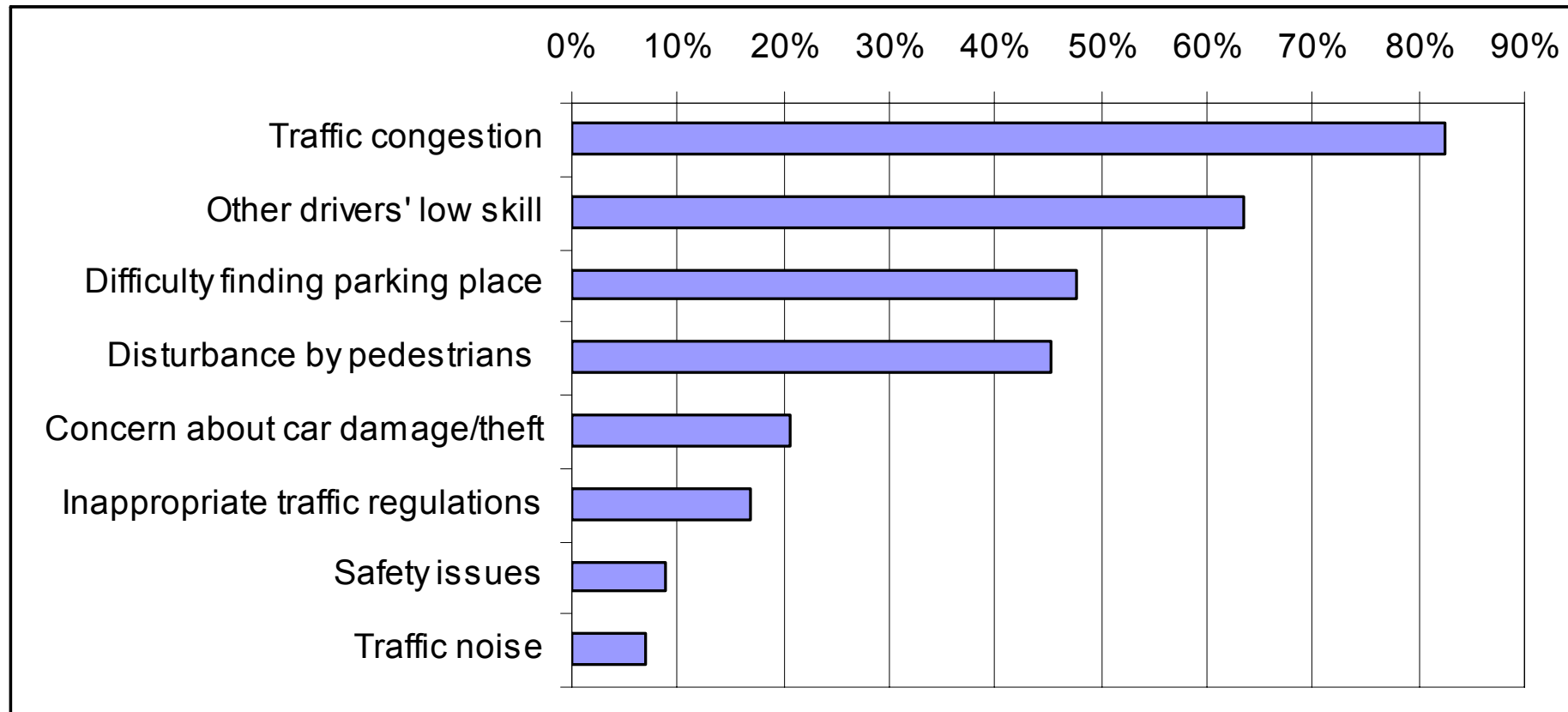
# PT users: Environmental issues

Concern about environmental impact of transport, by age



# Car users

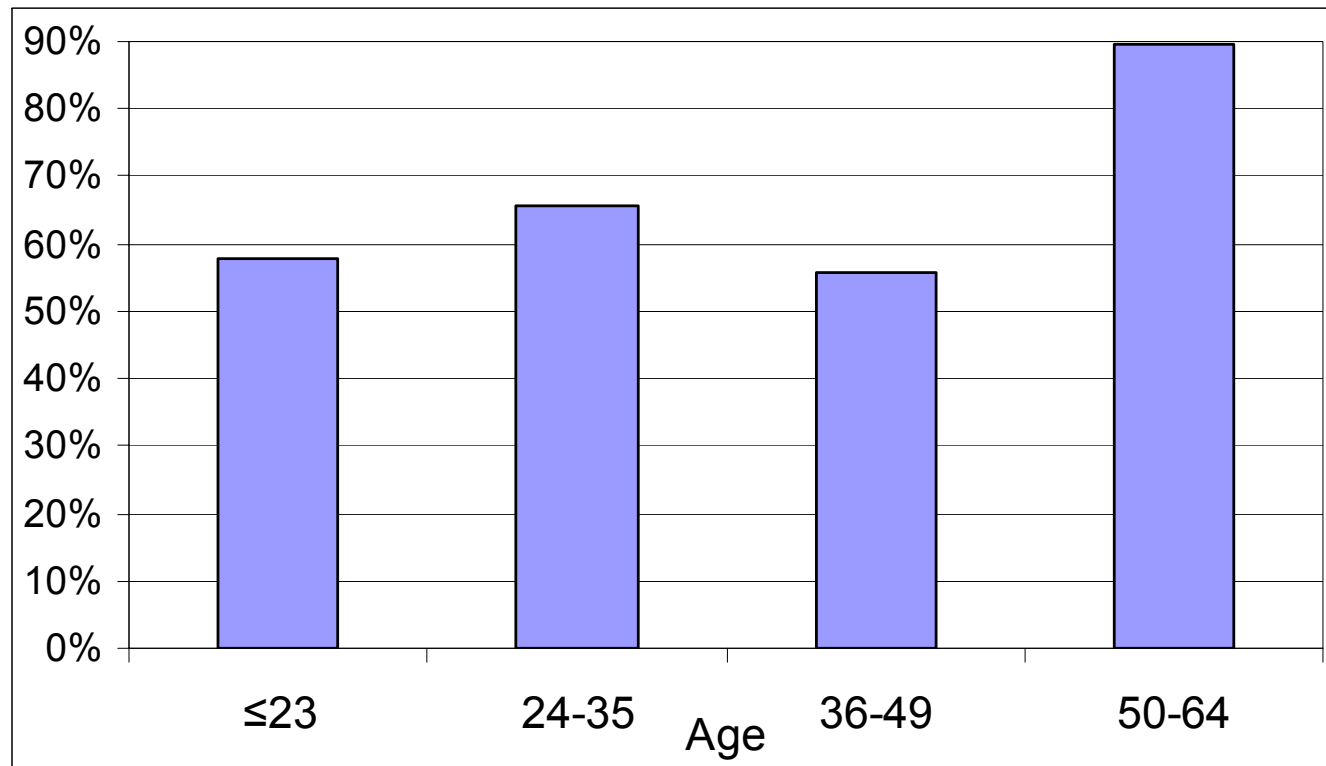
## Main obstacles perceived by car users



# Car users: Concerns about other drivers

- 63% complain of other drivers' low qualification

Car drivers complaining of other drivers' qualification, by age



- 69% of respondents state that they follow traffic rules

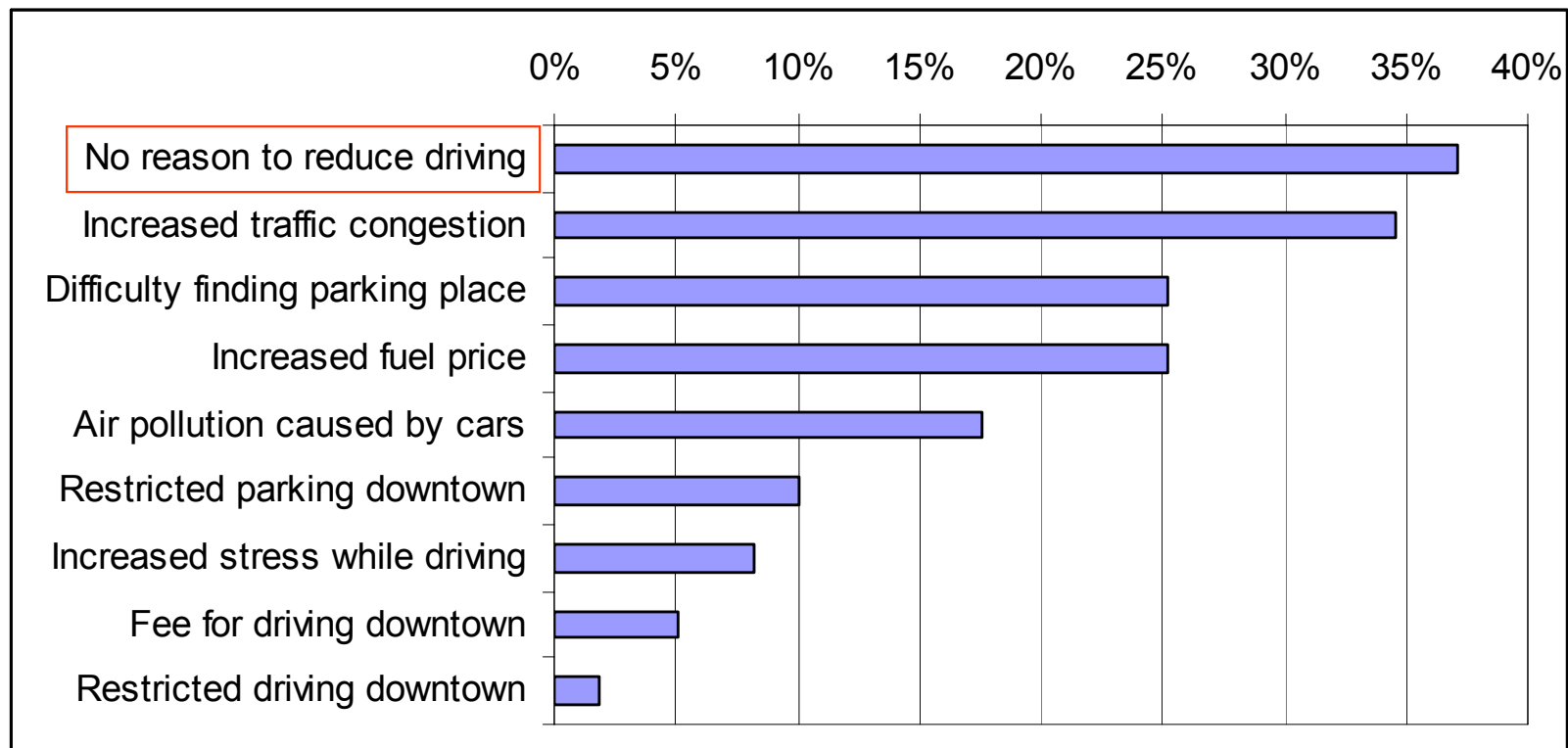
# Travel behavior changes

*Is it cultural?*

Two groups of the population: PT and car users

- 72% of car users drive their car every day

“What would make you reduce driving?”





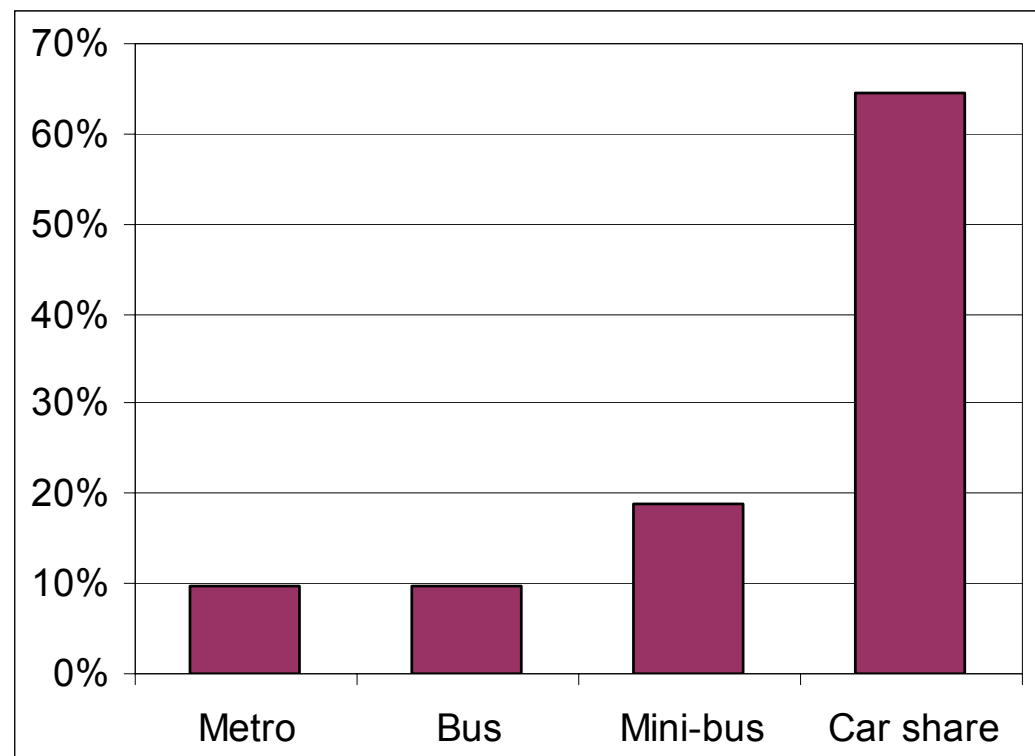
# Travel behavior changes

*Is it cultural?*

Two population groups: PT and car users

- 64% of PT users use public transport every day

Transport type preferred by public transport users



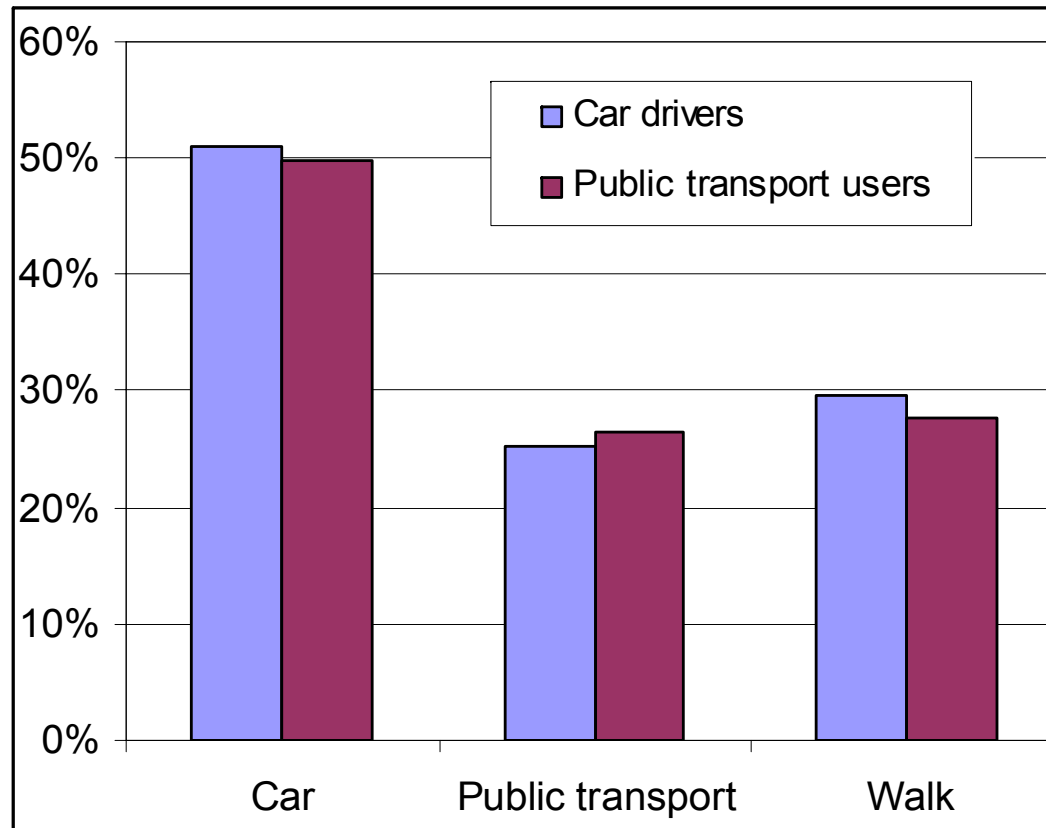
- 87% of PT users do not own a car

# Travel behavior changes

*Is it cultural?*

Two population groups: PT and car users

Preferred transport mode for short distance trip (<3 km)

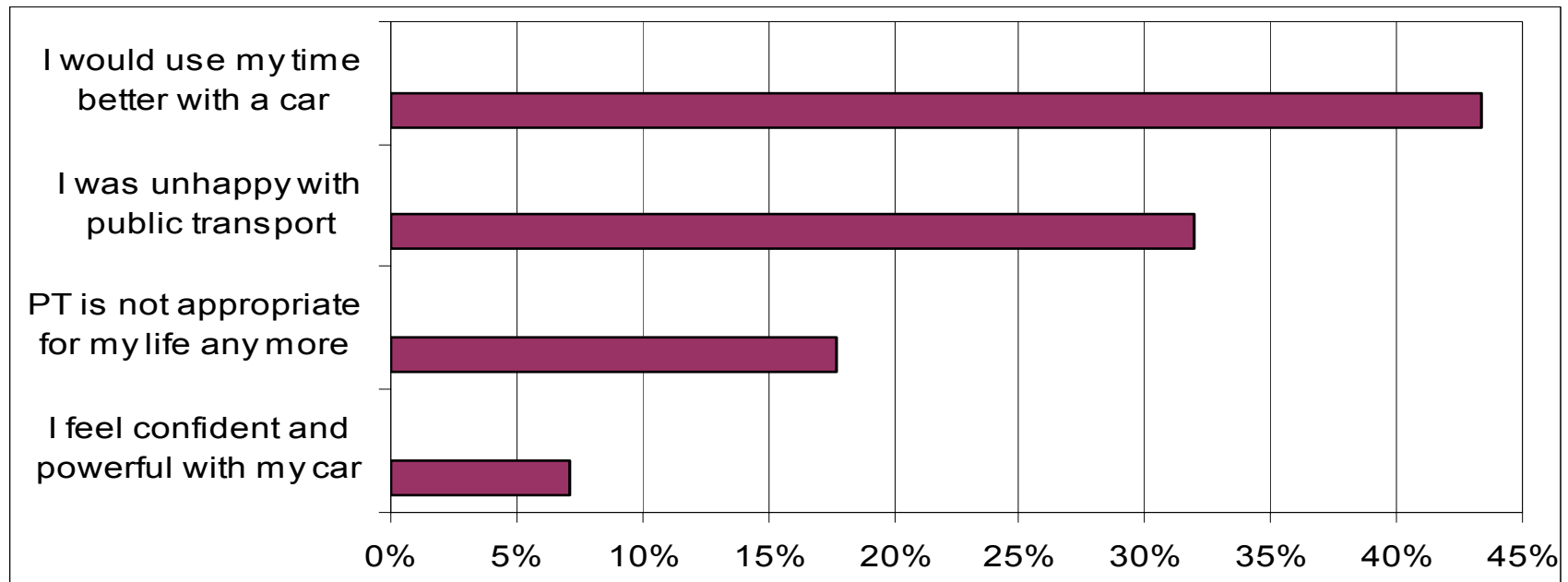


# Key factor in determining transport mode decision

## PT users

- **Convenience and time saving**

“If you had a car, why would you not use PT any more?”

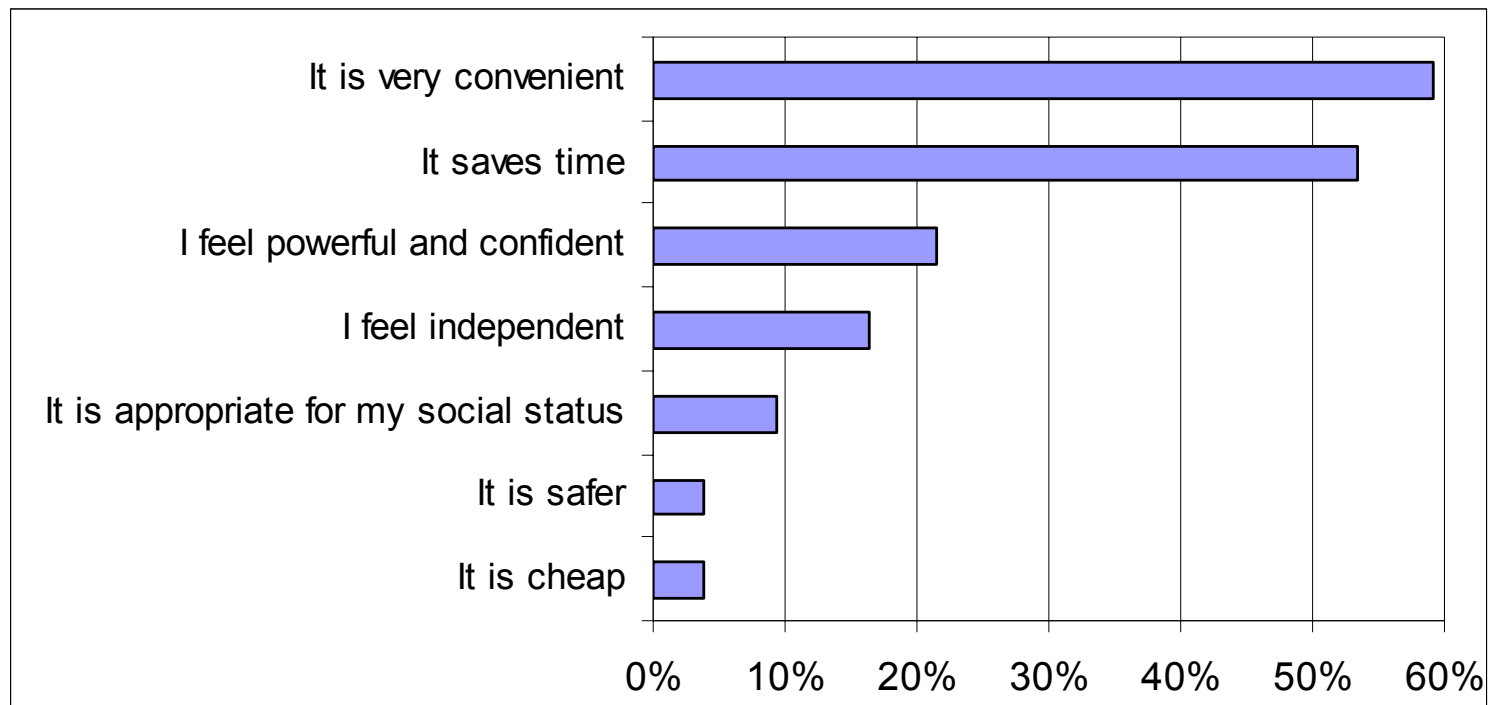


# Key factor in determining transport mode decision

## Car users

- **Convenience and time saving**

“What do you like about driving your own car?”



# Transportation problems and solution

- Increased traffic flow
- Increased traffic congestion
- Unorganized parking
- No vehicle technical inspection, causing high air pollution
- No efficient traffic regulations
- Traffic speed not enforced in city



- New programs for bus networks are currently under development: 510 new buses
- One card for bus and metro ride is under development
- Children under 18 are free from PT fee, students pay half price and benefits for the vulnerable citizens

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# Recommendations

- Public transport in Tbilisi should be of a sufficiently high standard to make car ownership unattractive
  - Limit private vehicle traffic at a particular times and places
  - Develop car-free locations within the city
  - Strategies to reduce traffic speeds
  - Roadway design and management practices that favor more efficient transport modes
  - Variable road pricing used to reduce peak-period vehicle trips
  - Charging for parking, and limited parking in certain areas
  - Giving priority to public transport in downtown
  - Strategies for encouraging non-motorized transportation
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# Future transport vision

“The implication of this car culture must not be underestimated. This means we should be designing cities for people, businesses, prosperity and security as well as high quality environment. Transport plays an essential role in creating a sustainable city, but it should not be the main agent in its destruction” (Banister, 2005)



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Thank you

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