



Final Report – Key findings

# Gender Equality in Transport in Serbia



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## List of abbreviations

<b>CBGE</b>	Coordination Body for Gender Equality
<b>CER</b>	The Community of European Railway and Infrastructure Companies
<b>DCI</b>	Dornier Consulting International
<b>EIGE</b>	European Institute for Gender Equality
<b>EU</b>	European Union
<b>GE</b>	Gender Equality
<b>GETS</b>	Gender Equality in Transportation in Serbia
<b>GSP</b>	Belgrade City Transport Company (Gradsko saobračajno preduzeće “Beograd”)
<b>HR</b>	Human Resources
<b>ICT</b>	Information and Communications Technologies
<b>ILO</b>	International Labour Organisation
<b>LFS</b>	Labour Force Survey
<b>MCTI</b>	Ministry of Construction, Transport and Infrastructure
<b>PDI Fund</b>	Pension and Disability Insurance Fund
<b>PGA</b>	Participatory Gender Audit Methodology
<b>PUC</b>	Public Utility Company
<b>RS</b>	Republic of Serbia
<b>RSD</b>	Serbian dinar
<b>SORS</b>	Statistical Office of Republic of Serbia
<b>ToR</b>	Terms of Reference
<b>UN</b>	United Nations

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## EXECUTIVE SUMMARY

**This report summarizes the findings of the “Gender Equality in Transport in Serbia” (GETS) project with the main aim to provide evidence for policies addressing gender equality in transport.** Transport is one of the key sectors that influences access to resources. Consequently, gender specific capacities for mobility are critical for participating in the economy and society and contributing to development, but also for personal wellbeing of citizens and quality of life. Implementing gender perspective in transport policy planning is a pioneer approach in Serbian context.

**A complex methodology containing desk, quantitative and qualitative approach was applied.** This includes desk research, 29 interviews with municipal stakeholders, 9 interviews with transport service providers, 8 Focus Group Discussions (FGDs) with 75 participants from various groups of citizens and representative national survey on mobility behavior (2,400 respondents).

**A set of Key Performance Indicators (KPI) for the assessment of transportation from a gender perspective were designed.** KPIs are aligned according to the four dimensions: Availability, Accessibility, Affordability and Acceptance. KPI sets have been developed on basis of available gender and transport statistics, expert interviews, FGDs with users and a representative user survey in Serbia during summer 2019.

**The KPIs were used to assess gender differences in opportunities for social participation and social inclusion due to the differences in transport use.** Among various issues the following were emphasized: transport issues related to employment, education, access to public and social services and access to leisure and shopping. Gender differences in use of transport in the context of inclusion were investigated.

**Overall, the analysis reveals significant gender inequalities in relation to transport.** In the following paragraphs these findings will be presented according to the key dimensions.

**The analysis recorded most frequent modes of transport: walking, driving a car and using local buses.** Other modes of transport are much less frequently used such as taxi, bicycles, trams are limited to few cities, minibuses, regional buses and trains are usually not used for daily commuting, while car sharing, boats and ferries, and transport organized by employers play a marginal role (frequency here means the number of trips during week or month by particular transport means).

**The following key gender differences were recorded:**

- Men drive more frequently car or motorcycle than women (e.g. men drive a car on 40% of their trips, while women only drive on 16% of their trips);
- Women use cars as passengers more frequently than men (16% of the women’s trips are made as passengers in a car, in contrast to 6% of the men’s car passenger trips);
- Women use public transport and taxi more frequently than men;
- Women are more prone to intermodal mobility behavior (e.g. 20% of women and 14% of men combine different transport means during a single trip 4-5 times a week);
- Men ride bicycles more frequently than women.

**There are differences in the availability of various transport options.** Walking and cycling structure is underdeveloped which puts limits on the availability of walking. Quantitative data on availability of sidewalks are missing, but qualitative data point out to their low quality. They are often blocked by parked cars. Perceived availability of public transport is moderate, and it is lowest in Belgrade compared to other regions. Other transport options, e.g. taxi and shared mobility services, are moderately available and rarely utilized. The availability of MIT seems to be higher, but gender differences are more pronounced than for other modes of transport. Men rate availability of car as driver higher than women (5.0 vs. 4.4). **There is a prominent gender imbalance in MIT mobility and accessibility.** More men than women have car and motorcycle driving license as a prerequisite for using cars and motorcycles: 71% of the adult men, but only 35% of adult women own a driving license. The unequal distribution of driving licenses and car ownership between men and

women as well as prevailing cultural patterns have two consequences (1) gender imbalance in mobility due to the higher restrictions on female mobility and (2) mobility patterns that are rather the outcome of restrictions than personal choices. Furthermore, accessibility to transport infrastructure is context dependent. Due to the limited access to cars and higher dependency on public transport, mobility of women in Serbia is much more restricted in cities with a deficient public transport network. The public transport network density differs considerably between localities. Hence, accessibility of different POIs is highly context dependent.

**There are gender differences in affordability of MIT while public transport is generally perceived as cheap.**

No gender differences regarding the perception of affordability of public transport were recorded. Both female and male respondents state that public transport is cheap (women 65%, men 67%). There are gender differences in monthly expenditures on different modes of transport: men spend more on cars and women spend more on public transport. Gender gap in spending on car is small in households with lower economic status and the most prominent in the households with high economic status in which men spend much more than women. The economic status significantly affects affordability of MIT and determines the gender gap. Women with lower self-perceived economic status drive less.

**Acceptance and perception of safety are low for public transport.** MIT and walking are perceived as flexible and comfortable modes. On the other hand, public transport receives lower scores. Unpleasant feelings related to using public buses are for both, men and women (without significant differences) caused by deficient vehicles, broken seats, lack of lights, and behavior of the bus driver. Women perceive transport as less safe than men. They are also more often victims of sexual harassment and discrimination. Contrary to the reality, driving a car and being a passenger in a car is rated as safest transport modes.

**Mobility patterns related to employment differ significantly.** Women walk to work or use public transport while men commute by driving the car. Rural residents depend more on car or motorcycle both as driver and passenger. However, there are no transport-related difficulties in finding a job.

**Mobility patterns related to education are also gender-specific.** Small children (pre-school and lower grades of primary school) are more often accompanied by their parents, so their mobility patterns are dependent on the parents' mobility patterns. Primary school children reflect mobility patterns of their parents which are gender specific. If accompanied by a mother, children more often walk and if accompanied by a father, children more often go to school by car. As they grow up, children assume gendered mobility patterns of adults.

**Mobility patterns related to the access to public and social services are also different among men and women as they are the consequence of unavailability of transport options.** As a rule, and reflecting general gendered mobility patterns, men more often than women go to public and social services by driving a car, while women more often walk and ask others to drive them or use local public transport. Because of limited mobility options, women tend to restrain the use of services and social activities more often than men. Mobility patterns related to the access to leisure and shopping reflect general patterns. Men use cars for social activities more often than women.

**The transport sector in Serbia predominantly employs men (80% of all employees in the sector).** Among employed men there is a higher share of entrepreneurs and self-employed than among women. Women employed in this sector are more likely to be employed in public companies. In addition, they are most often employed as administrative staff or as professionals, while men are most frequently employed as drivers and other workers. However, participation of women among executives and professionals is far lower than men (e.g. they compose 72% of managers and 66% of engineers and technicians). Women employed in the transport sector are, on average, more educated than men.

**The recommendations are based on several key principles:**

- **The autonomy of women in transport should be increased** by a more equal share of private transport resources (such as cars and motorcycles) as well as more diverse offer of public transport and transport services (including shared mobility services).
- **The improvement of public transport needs to pay attention to women** who represent majority of users in several ways (e.g. by reducing delays, synchronizing schedules and improving safety) but also by making intermodal mobility behavior easier and stress free.
- **The improvement of public transport and shared mobility services should attract men to use more these mobility options and to reduce use of car** which is problematic with regards to congestions in big cities, safety risks and environmental protection.
- **Designing transport policy measures and management of transport system should be based on the evidence on gender specific needs** of population in local communities, promoting social inclusion through well-tailored transport modes in line with access to social resources, services and time use.

**Sets of measures related to the elimination of gender segregation in education and occupations in the transport sector are proposed.** The aim of these measure is to enable women to enter male dominated fields and jobs, equal opportunities in employment, monitoring and eliminating gender pay gap, increase of women's entrepreneurship in transport, and corporate social responsibility practices that promote equal responsibility for family among employed women and men.

## 1. INTRODUCTION

This report summarizes the findings of the “Gender Equality in Transport in Serbia” (GETS) project implemented during April-September 2019 by the Dornier Consulting International and SeConS on behalf of the Coordination Body of Gender Equality (CBGE), the Ministry of Construction, Transport and Infrastructure (MCTI) of the Republic of Serbia and with support of the World Bank.

### *The background and purpose*

**The main purpose of the study is to provide evidence for policies addressing gender equality in transport.** Transport is one of the key sectors that influences access to resources. Consequently, gender specific capacities for mobility are critical for participating in the economy and society and contributing to development, but also for personal wellbeing of citizens and quality of life.

**Freedom of movement is essential for economic and social participation.** Freedom of movement, set as one of the fundamental human rights (The Universal Declaration of Human Rights, 1948, Article 13) is precondition for economic participation of women and men but also for building up social networks and participation in society. Gender inequalities in transport can generate and perpetuate other gender inequalities, such as access to employment, markets, services, cultural resources and overall social participation. As one out of 17 Sustainable Development Goals, the UN defined therefore gender equality as a central pillar of sustainable development (UN 2015).

**In Serbia, the Coordination Body for Gender Equality is key national mechanism promoting gender equality across different sectors and governance levels.** The high political commitment to achieving equality between men and women is reflected by the fact that the Coordination Body for Gender Equality is led by the Deputy Prime Minister and the Minister of Construction, Transport and Infrastructure. Investigating gender equality in transport is therefore a consistent step of exploring this recent topic in the sector which is dominated by male decision-makers worldwide from government authorities to research and academic institutions. As a starting point for the development of long-term strategies and monitoring activities, the Coordination Body for Gender Equality in Serbia and the Serbian Ministry of Construction Transport and Infrastructure decided to assess the state of gender equality in the Serbian transport system with support from the World Bank.

### *The objectives*

**The main objective of the GETS study is to provide insights in gender specific aspects of the transport in Serbia.** GETS study pays particular attention to several key aspects:

- Gender specific mobility patterns;
- Gender differences and inequalities in availability, accessibility, affordability, and acceptability;
- Gender differences in access to various public and social services due to the differences in access to transport;
- Gender specific risks, patterns of discrimination and exposure to violence;
- Gender aspects of employment in transport sector.

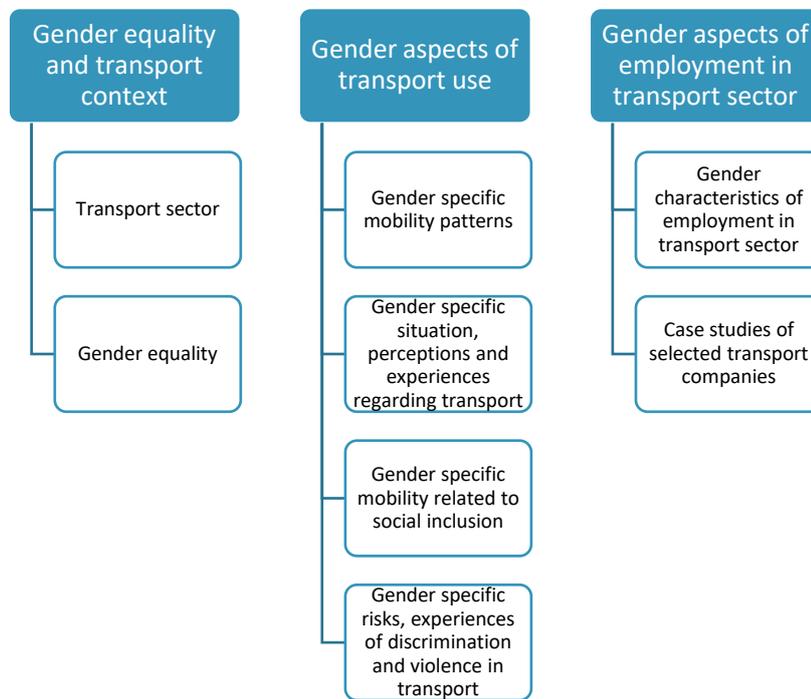
### *The scope of the study*

**The study is multi-layered.** It is based on complex research implemented through mixed methods: quantitative and qualitative, data obtained from original research designed for the purpose of this study as well as official administrative data. The situation is analyzed at the level of the Republic of Serbia, with key findings presented at national level. Qualitative data were used to address local specificities of transport and gender, to point out to behavioral patterns and illustrate quantitative data.

## Content of the study

The study is composed of three parts. In addition to the brief chapter explaining methodology, GETS study includes three main parts: (1) description of relevant context in Serbia with focus on transport sector and gender equality, (2) gender aspects of transport use and (3) gender characteristics of transport sector in terms of employment.

Figure 1: The structure of the report



The main body of the analysis is dedicated to the gender aspects of transport use, as this was the uncharted territory prior to the GETS research. This part of the study includes three sections. First section depicts the gender specific mobility patterns and answers the research questions: which transport modes are more used by men and women and what are possible reasons for differences in transport use? Second section describes the situation, but also perceptions and experiences as subjective aspects of transport use along four key dimensions: availability, accessibility, affordability, and acceptance. Third section describes the mobility in relation to the social inclusion, attempting to answer the question, how men and women of different age access employment and different public and social services (i.e. education, social protection, shopping facilities, or cultural events) which are important for participation in economy, society and for the quality of life?

Third part of the study analyses the transport sector from the perspective of employment. The first section is focused on the situation in regard to the level of employment, specific patterns of gender segregation according to occupation and opportunities to reach decision making positions. In the second section findings from case studies implemented and published in the separate report are briefly presented, revealing the situation in four transport companies.

Conclusions and recommendations based on findings are presented in the final chapter.

## 2. APPROACH, METHODOLOGY AND CONTEXT FOR UNDERSTANDING GENDER ASPECTS OF TRANSPORT

### 2.1 THE APPROACH AND METHODOLOGY

#### 2.1.1 The approach to study of gender aspects of transport

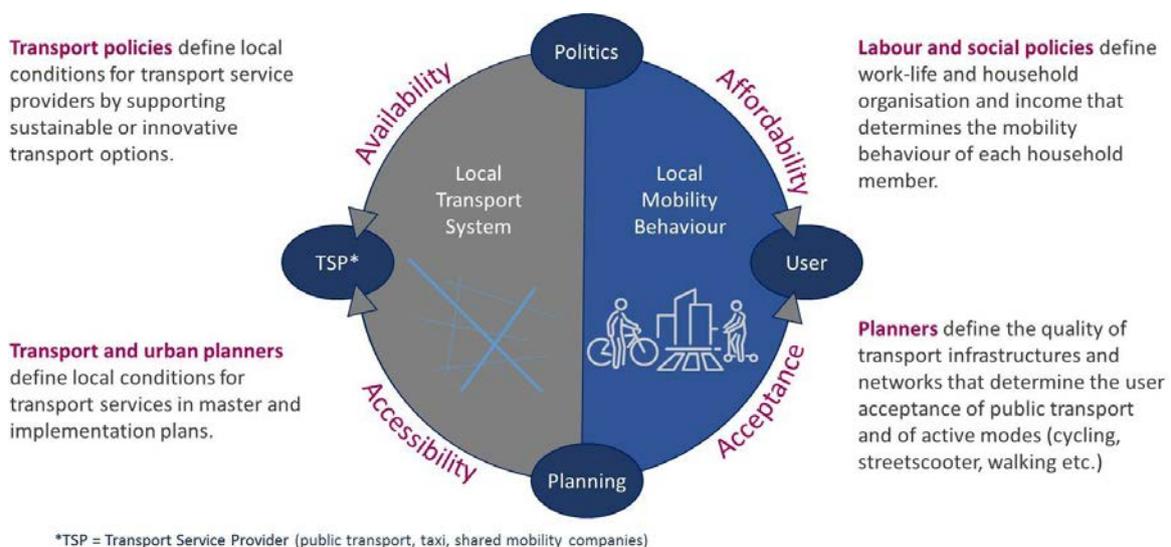
The main approach of the study is **gender analysis of use and perceptions of transport system**. The gender analysis enables to identify gender differences and gaps in use of the transport modes as well as gender differentiated experiences and perceptions through which women and men evaluate different transport options and shape their mobility related behaviors.

The four dimensions – **Availability, Accessibility, Affordability and Acceptance (AAAA)** of the transport – are the pillars of the analysis. In this segment, the focus of the analysis is the transport system. The analysis describes the transport system from the objective perspective (i.e. administrative data on infrastructure) but also from the subjective perspective, based on how men and women perceive, use and assess transport system.

**Availability, Accessibility, Affordability and Acceptance are common key dimensions of assessing the performance of public transport systems.** For the context of the GETS study, they also proved to be the most appropriate starting point of assessing gender equality in transport.<sup>1</sup> Each of the four GETS dimensions addresses key stakeholders that substantially contribute to enhance gender equality in transport (Figure 2).

**These four dimensions are interlinked and can enforce or counteract each other.** Individual mobility patterns, for instance, are dependent on the availability of local transport infrastructures and transport options. In contrast, individual socio-economic situations, routines and preferences determine the affordability of car ownership or the acceptance of public transport.

Figure 2: GETS dimensions for assessing gender equality in transport

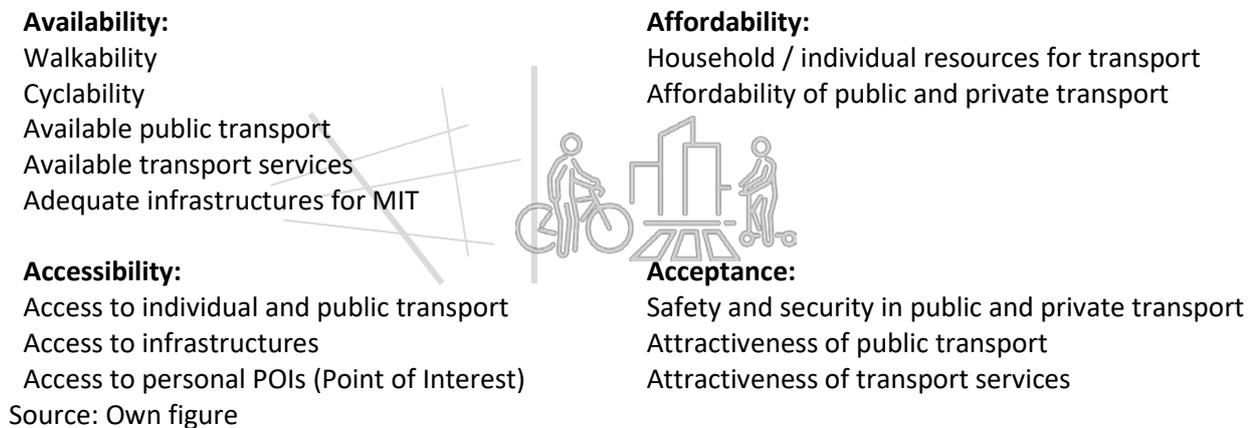


Source: Own figure

<sup>1</sup> These dimensions have been used by different authors in the context of assessing mobility systems particularly according to sustainable development (e.g. Caruthers et al. 2014).

**The four dimensions were redefined to specific project context.** In order to provide a reliable instrument for monitoring gender equality in transport in Serbia, all four dimensions have been redefined for the project context. They have also been underlined with specific sets of Key Performance Indicators (KPIs), which address central aspects of each dimension (see Figure 3).

**Figure 3: KPIs per GETS dimension**



**The four dimensions were used to assess gender differences in opportunities for social participation and social inclusion due to the differences in transport use.** The transport system is observed as a factor that influences the access to social services important for social inclusion, such as employment, education, social protection, public services such as services delivered by local self-governments, police, services related to consumption or culture and recreation. Gender differences in use of transport in the context of inclusion were investigated.

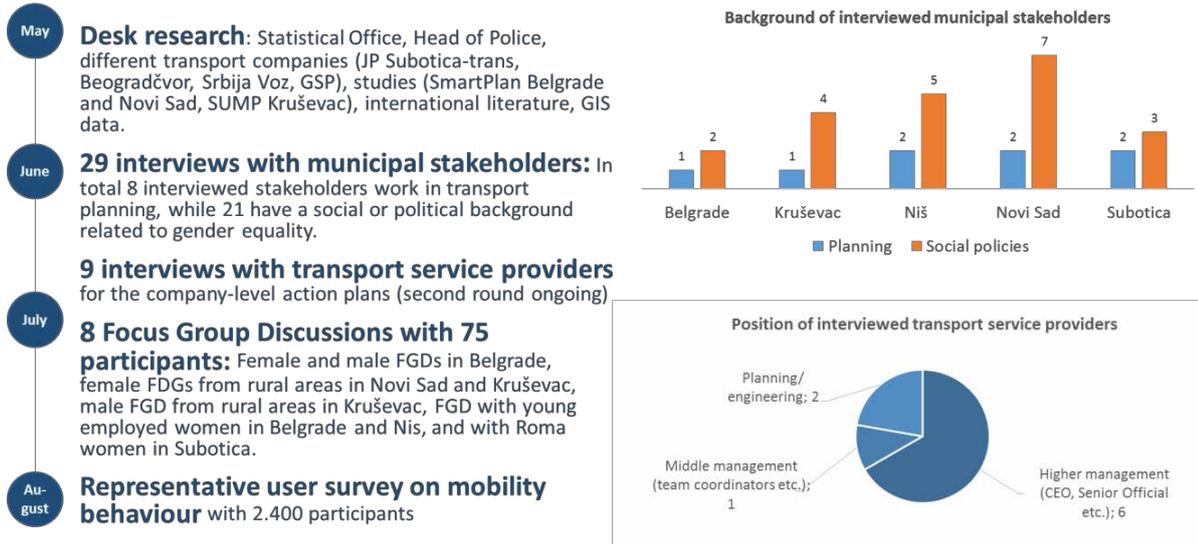
### 2.1.2 Research methodology

**A complex methodology containing desk, quantitative and qualitative approach was applied.** This includes desk research, 29 interviews with municipal stakeholders, 9 interviews with transport service providers, 8 Focus Group Discussions (FGDs) with 75 participants from various groups of citizens and representative national survey on mobility behavior (2,400 respondents).

**The performance ratings for KPIs have been calculated for Serbia.** The performance ratings are not based on universally accepted international standards as this is still new area. They are based on the experts' assessment taking into account international and national specific context and data availability.

**Desk analysis provided information for a background on gender, transport and gender in transport situations, both globally and locally.** It contained literature overview, analysis of key international and national documents, official statistics, and overview of various national and local stakeholders and their work.

**On basis of an initial desk research, the project team has conducted a series of in-depth interviews.** The interviewees were local transport planners, transport service providers, social institutions and NGOs focusing on mobility or gender issues. In addition, eight FGD with local stakeholders and users of transport services have been organized. They aimed at getting insight in the users' and service providers' perspectives on gender-relevant aspects of transport.

**Figure 4: Data base for the GETS study**

Source: Own figure

**Quantitative data on users' behavior and attitudes were collected through field research.** The project team carried out a representative user survey on mobility patterns in Serbia. By end of August 2019 a total of 3,096 people have been interviewed either face to face (CAPI - Computer Aided Personal Interview) or via the web interface (CAWI - Computer Aided Web Interview) for the user survey. Finally, 2,400 respondents were selected for the representative sample that has been the main source of information on gender aspects of mobility patterns in Serbia.

**The analysis is conducted in several layers.** Data and information collected through desk, nationally representative survey and qualitative research are analyzed primarily at the national level and presented in this study. In addition to this, qualitative research on transport in selected cities in Serbia were conducted with the aim to provide insights in the locally specific features and nuances related to transport. This includes Belgrade, Niš (Southern and Eastern Serbia), Kruševac (Western Serbia and Šumadija), Novi Sad and Subotica (both Vojvodina). The findings are used only occasionally as illustrations. In addition to this, an analysis of four companies providing transport services (Srbija Voz, Contractual Taxi Chamber of Commerce of Serbia, Public Utility Company – Belgrade City Transport Company and transport enterprise Lasta) was conducted. Findings related to these case studies are published in the separate report with summary being presented here, in the section related to employment in transport sector.

### Methodological limitations

**GETS study face two main limitations.** Having in mind that methodology for research on gender and transport are very recent and there are still no standardized methodologies that could be applied internationally, it is important to identify methodological limitations faced by the GETS project.

- **Lack of official statistical data, particularly gender disaggregated.** Official data on gender issues in transport are very limited (CIVITAS 2014). The most reliable statistical gender disaggregated data refer to the road accidents. Data on car registration refer to the car ownership but not driving practices, while data on driving licenses reflect only who is licensed to drive but not driving practices. They also depend on standards of updating and integrating statistics from different departments, such as traffic police data and population register data.
- **National vs. city or local community level.** While survey sample size enables for viable conclusions at level of Serbia, samples for cities are not adequate to represent city level populations. Therefore, data for city level are used more as qualitative indication of tendencies and specific features, than for fully reliable description of local transport systems.

## 2.2 CONTEXT OF GENDER AND TRANSPORT IN SERBIA

### 2.2.1 Transport system in Serbia

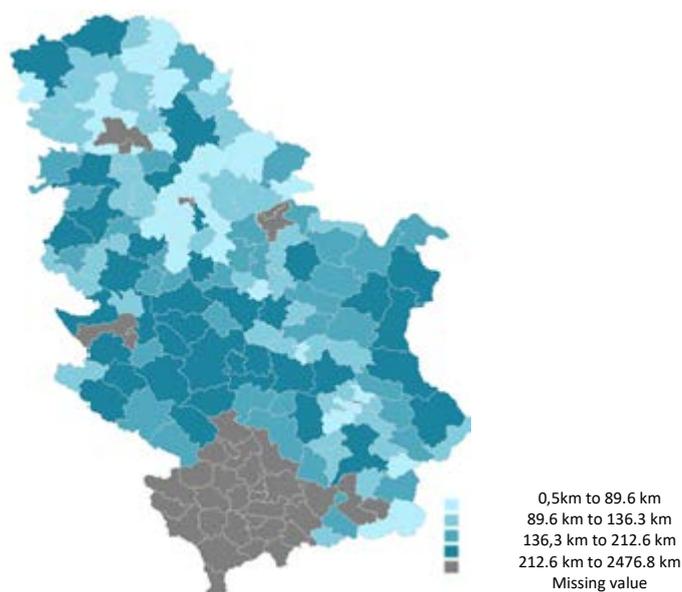
In Serbia, main highways are located along the North-South corridor whereas the railway network connects nearly all regions in Serbia. Recent investments in road and railway infrastructures along Corridor X aim at improving the accessibility throughout the country (World Bank 2019).

Figure 5: Railway and road networks in Serbia



Source: Own map

Figure 6: The length of modern roads per municipality in km (highways excluded)



Source: DevInfo database

**The density of road network varies across the country.** The total state road network length in the Republic of Serbia amounted to 44,239 km in November 2017. Category I state roads comprise 4,852 km (IA: 963 km, IB: 3,890 km) while Category II state roads comprise 10,040 km (IIA: 7,044 km, IIB: 2,995 km). The rest of the network consists of municipality roads (29,346 km) which are under the control of local municipalities. The structure of road network varies greatly across the country (Figure 6).

**Categorization of state roads is based on a set of primary and secondary criteria.** This subclass represents the IA category of state roads, known as motorways. The total length of motorways in Serbia is 1,166 km, from which currently 876 km are in service. Among the primary criteria for Category II state roads (IIA, IIB) are their connectivity of regional and most important traffic nodes and whether they connect to roads of the same category in neighboring states (IIA). Secondary criteria are related to traffic intensity and significance to the territory and population which they serve.

**Transport services are growing in physical volume.** This applies to all types of transport apart from railway, inland waterway and postal transport (Table 1). The highest growth was recorded for road transport which is the most important in internal transport. It is followed by railroad transport that has been stagnating in volume and inland waterway whose role is only marginal.

**Table 1: Physical volume indices of transport and telecommunication services, 2014-2018, 2018=100**

	2014	2015	2016	2017	2018
Railway transport	97	106	100	104	100
Road transport	60	63	74	80	100
Public transport	85	85	84	100	100
Inland waterway transport	131	148	160	125	100
Air transport	81	87	100	107	100

Source: RZS, 2019: 326

**The role of passenger bus transport has been steadily increasing.** It has in terms of the number of buses (from 2,054 in 2014 to 2,585 in 2019), kilometers run (160 million in 2014 to 170 million in 2018) and average distance per passenger (69.2 km in 2014 to 88.4 km in 2018). However, the number of passengers has decreased from 61 to 56 million (RZS, 2019: 333).

**Urban transport is growing and the dominant mode is bus transport.** The volume of urban public transport has been stable since 2017, with approximately 260 million passengers<sup>2</sup> with 259.8 million passengers in Q2/2017, 261.1 in Q2/2018 and 258.4 in Q2/2019. Road transport was the most dominant for of urban public transport (a stable 99% of passengers since Q2/2017), with bus transport being the dominant means (86% in Q2/2019). (RZS, 2019b:63).

**Railway transport is decreasing in size and role.** The overall length of tracks was reduced from 3,819 km in 2014 to 3,752 in 2019 and the number of departed passengers from 6.3 million in 2014 to 4.8 million in 2018. Inland waterway transport plays a marginal role with 2 passenger vessels with 100 passenger seats (RZS, 2019: 329-330).

**The trends in the transport sector are reflected in the employment size.** The number of employees in railway transport has decreased from 17,078 in 2014 to 10,207 in 2018. The number of employees in road transport has increased from 12,542 to 20,648. Interestingly, the situation in urban transport is different: the number of employees has decreased from 12,000 in 2014 to 11.516 in 2018.

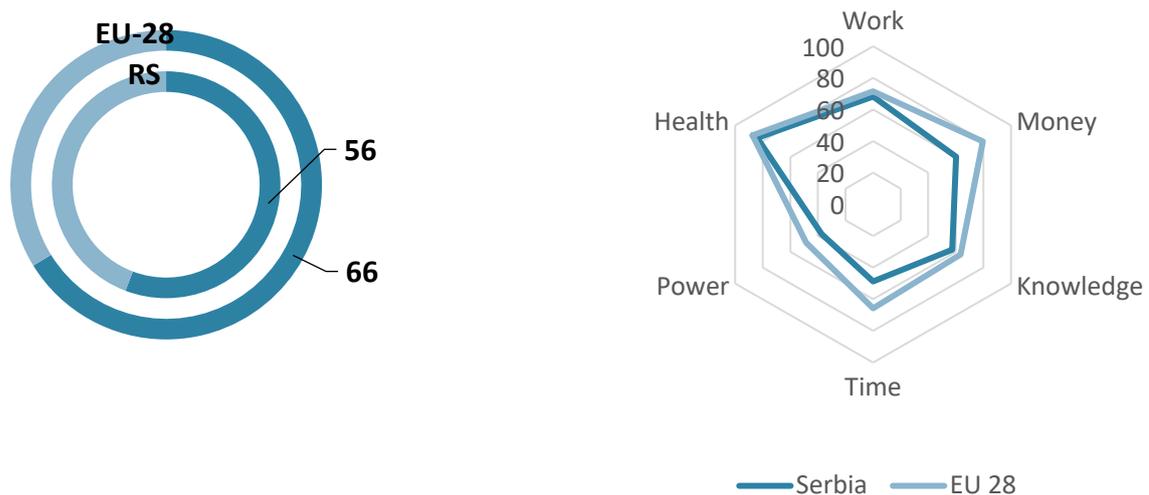
**The central location within Europe and its status as acceding country stimulates cooperation with the EU in the transport sector.** Serbia is, for instance, cooperating with the EU regional cooperation organization "South East Europe Transport Observatory" (SEETO) in order to harmonize Serbian transport policies and technical standards with EU standards (Deputy Prime Minister 2018).

### 2.2.2 Gender equality in Serbia

**Gender inequalities are prominent in Serbia.** Measured by the European Institute for Gender Equality (EIGE) Gender Equality Index<sup>3</sup>, according to 2016 data, the value of Index for Serbia was 56, which was significantly behind the EU-28 average of 66 points. The most prominent inequalities are in the domains of money, time and power, indicating lower economic standard of women, carrying out disproportionately unpaid household work and care for family, and insufficient participation in decision making in positions of political, economic and social power.

<sup>2</sup> Due to the changes in the methodology, earlier data are not comparable (RZS, 2019: 336).

<sup>3</sup> Gender Equality Index is composite measure of level of achievements and gender gaps in 6 domains of gender equality, which are at the same time key policy areas: work, money, knowledge, time, power, health and two satellite domains of intersecting inequalities and violence against women. The Gender Equality Index value can range from 1 to 100 with 100 indicating full gender equality.

**Figure 7: Gender Equality Index, Republic of Serbia 2016 and EU-28 2015**

Source: SIPRU, Gender Equality Index Serbia 2018

**The labor market participation is much lower for women than for men**, as indicated by activity, employment, unemployment and inactivity rates (Table 2). There is also prominent gender segregation on the labor market, with women concentrating more in the sectors related to social services and men in the sectors of manufacturing, construction, and ICT. Transport sector is one of the sectors with strong gender segregation, as it will be described more in the chapter dedicated to the employment.

**Table 2: Basic labor market indicators by gender, working age population (15-64), 2018, in %**

Labour market indicators	F	M
Activity rate	61	75
Employment rate	52	66
Unemployment rate	14	13
Inactivity rate	40	25

Source: Statistical Office of Serbia, Labor Force Survey 2018

**Employment and working conditions in transport-related companies are regulated by a complex institutional framework.** Among the laws regulating different spheres of the employment and work within the transport sector, there are several key laws which define the conditions, rights and obligations of key stakeholders in the process of employment with regards to social rights based on employment status, safety and health at the workplace. The core framework for employment in the transport sector is defined by the Law on Labour,<sup>6</sup> the Law on Employment and Unemployment Insurance,<sup>7</sup> the Law on Compulsory Social Insurance,<sup>8</sup> the Law on Security and Protection at Workplace,<sup>9</sup> while some benefits related to parenthood, family and employment are defined in the Law on Financial Support to the Families with Children.<sup>10</sup>

**A multifaceted policy framework is in place as well.** The policy framework is shaped by several key policies, such as overarching gender equality policies, employment and education policies as well as specific policies related to the development and employment opportunities in the transport sector.

**Gender equality mechanisms and policies have been developing in last decades, with the Coordination Body for Gender Equality (CBGE) having the most important role for mainstreaming gender equality in Serbia.** It was founded by the Government of the Republic of Serbia in order to coordinate the work of the state administration bodies in relation to gender equality in Serbia.<sup>11</sup> CBGE works on strengthening the network of representatives of all ministries (gender focal points), who are nominated by the ministers to deal with issues related to gender equality. Within the Ministry of Labor, Employment, Veteran and Social Affairs there is a department for antidiscrimination policy and the promotion of gender equality<sup>12</sup> and at the level of local communities there are local gender equality mechanisms mandated to mainstream gender in local policies and implement gender equality policies and measures.

### 3. GENDER ASPECTS OF MOBILITY PATTERNS IN SERBIA

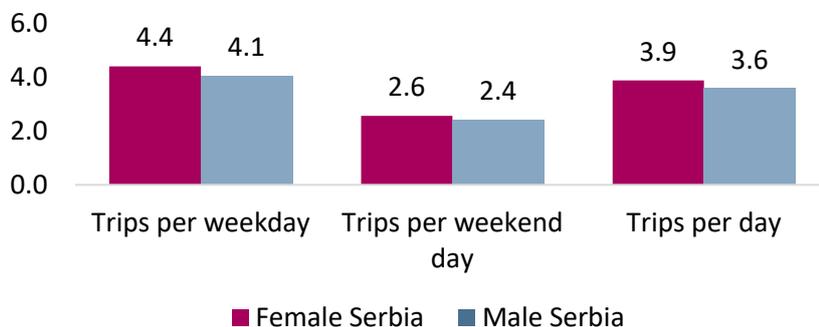
#### 3.1 GENDER ASPECTS OF MOBILITY IN SERBIA

##### Key findings:

- There are prominent gender differences in mobility patterns, with women being more dependent on others (persons or service providers), and men being more autonomous.
- Women rely more on public transport, while men rely more on private cars.
- Women use more often than men local buses, tram, trolley, taxi, regional buses, car as passengers and they walk more often.
- Apart private cars, men more often drive motorcycles and bicycles.
- Women are more often than men forced to combine different means of transport in single trip.

**Serbia is characterized by high number of trips made by women and men, on weekdays and weekends as well.** Serbia, the average number of trips is 3.8 per day, with 3.6 trips for men and 3.9 trips for women (GETS survey). Both, men and women, make much more trips during the week than on weekends. Although the difference is not high, Serbian women still make more trips on weekdays and on weekends than men.

**Figure 8: Daily trip number in Serbia per gender**



Source: GETS survey, n=2,400

**Walking, driving a car and using local buses are most frequent modes of transport.** Both men and women in Serbia most frequently walk, use private cars either as drivers or passengers, and local buses (frequency here means the number of trips during week or month by particular transport means). Other modes of transport are much less frequently used, such as taxi, bicycles, or minibuses, while trams are limited to few cities. Regional buses and trains are usually not used for daily commuting, while car sharing, boats and ferries, and transport organized by employers play a marginal role.

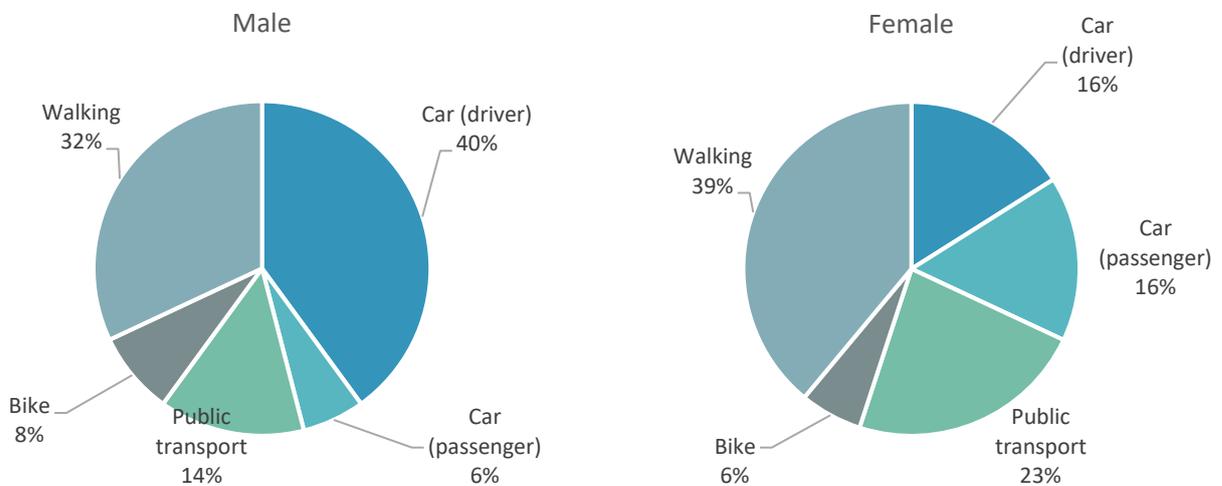
Within this common transport framework, **there are gender differences related to frequency of use of different transport means.** They indicate that:

- Men drive more frequently car or motorcycle than women;
- Women use different forms of public transport more frequently than men, including local buses, trams, minibuses;
- Women use cars as passengers more frequently than men;
- Men ride bicycles more frequently than women;
- Women use taxi more frequently than men.

**Women rely less on private cars than men and more on public transport and walking.** Men drive a car on 40% of their trips, while women only drive on 16% of their trips. Furthermore, women are more often

passengers than drivers of private cars: 16% of the women's trips are made as passengers in a car, in contrast to 6% of the men's car passenger trips (Figure 9). In women's overall mobility walking has higher share than among men's (39% vs. 32%), as well as public transport (23% vs. 14%). Cycling is the least frequently used transport, but somewhat more often among men than women (8% vs. 6%).

**Figure 9: Modal split per gender in Serbia (share of trips with different transport modes in the overall number of trips)**



Source: GETS survey, n=2,400

**No gender difference was recorded regarding walking and intercity transport.** Although more women than men walk (almost every day), and during week, the difference is not statistically significant. There is also no significant difference in use of intercity transport such as trains and long-distance buses.

**Table 3: Gender differences regarding use of different transport modes at daytime (until 18:00), in %**

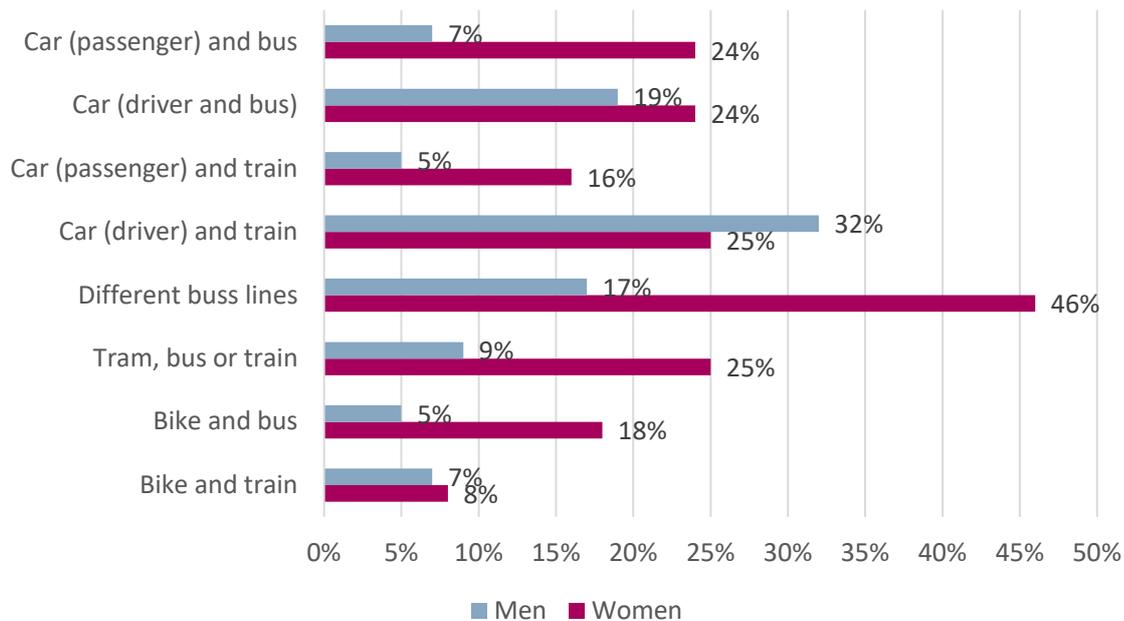
Modes of transport	Almost daily		4-5 days per week		1-3 days per week		1-3 days per month		Less than once per month		(Almost) never	
	M	F	M	F	M	F	M	F	M	F	M	F
Car or motorcycle as a driver	44	20	14	9	14	11	5	7	4	6	19	48
Cycling	13	12	10	7	18	11	11	8	12	12	36	51
Taxi	1	1	2	2	5	9	16	21	33	35	43	32
Minibuses	0	1	1	2	2	4	5	6	14	17	78	70
Car as a passenger (driver is a family member)	5	11	5	15	15	24	21	19	21	15	34	16
Tramway	2	3	2	4	6	5	8	9	13	14	70	65
Local buses	9	16	9	12	12	14	15	17	21	18	34	24

Source: GETS survey, n=2,400

**Women are more prone to intermodal mobility behaviour that is, combining two or more transport modalities in one trip.** More than fifth of women and men in the sample (23% of women and 22% of men) combine different transport means during single trip every day, and 20% of women and 14% of men do that 4-5 times a week. Combining different transport means in a single trip could pose stress. This is due to a more difficult trip and time management when transport schedule of different transport means and lines is not

well synchronized, due to the disruptions and other reasons. Since women use intermodal transport means more frequently, they are also more exposed to these effects.

**Figure 10: Percentage of men and women combining two or more transport means in single trip every day**



Source: Gets Survey, n=545

## 3.2 AVAILABILITY, ACCESSIBILITY, AFFORDABILITY AND ACCEPTANCE OF TRANSPORT: GENDER SPECIFIC SITUATION, PERCEPTIONS AND EXPERIENCES

As explained in the approach and methodology section, the performance of the transport system is measured along four key dimensions: availability, accessibility, affordability and acceptance. In this section the situation is presented in its objective (factual situation) and subjective (perceptions and experiences) aspects. Each dimension is operationalized through sets of sub-indicators presented in the tables.

### 3.2.1 Availability

#### Key findings:

- The highest gender gaps in availability of transport modes is found in relation to the private cars. Women much less than men own cars, have driving license for cars and motorcycles, and consequently, their rating of the availability of car for driving is much lower.
- Gender gaps in availability of cars are even more prominent in rural areas and among poorer households.
- The gender differences are also manifested regarding cycling, as women less often possess bicycles and less often use bicycles than men.
- There are no gender prominent differences in perception of availability of the infrastructure that enables walking.
- Availability of public transport is limited and because women use more public transport than men, they are more affected by this fact. Gender gaps in mobility are higher in rural areas and less developed regions due to the lower availability of public transport.

**The availability dimension refers to the variety of transport options provided at a certain location.** The GETS study took a comprehensive approach, including in addition to public transport other options, such as minibuses, taxis as well as Motorized Individual Transport (MIT).<sup>4</sup>

**The availability of public and private transport services directly determines the freedom of modal choice.** The more transport options, the greater the option to find the most adequate mode of transport for each individual trip. Availability of cars and a broad variety of transport options increases the chance that everyone can flexibly choose a mode of transport that meets his or her requirements best for each trip and purpose. For any group without a driving license or private car, the availability of other transport options is vital for the personal freedom to reach any destination with ease. The availability of cars is dependent on personal characteristics such as a driving license or car ownership which is strongly gendered in society with prominent gender inequalities and patriarchal gender regimes. The availability of public transport services as well as adequate infrastructures for walking and cycling are basically equal for men and women living in the same location. However, the gender differentiated responsibilities and daily routines (i.e. taking children to education facilities or daily shopping) could lead to different outcomes if transport is not equally adjusted to these routines and specific needs.

**The availability dimension was operationalized through several sets of KPIs:**

- **Walkability** of a city or other settlement can be assessed by analyzing infrastructures for pedestrians as well as their use in terms of share of walking trips.
- **Cyclability** of a city or other areas is determined by adequate infrastructures for cyclists that has an impact on the modal share of cycling trips.
- **Availability of public transport options** can be assessed by the number of transport options such as trams, buses, trains and is also reflected by the share of public transport trips.
- **Availability of transport services** is indicated by the frequency of using minibuses, taxis, trains or intercity buses, as well as by availability of bike, car-sharing and similar services.
- **Availability of infrastructures for MIT** is assessed by different indicators on the quality of the road network but also by the availability of vehicles and possession of driving licenses.

**Some data related to the availability are missing in the official statistical sources, so qualitative research insights are used.** Since most Serbian institutions collecting transport-related data follow an open data strategy, data on road quality e.g. on the ration between “modern” paved and unpaved roads, as well as public transport data, e.g. on bus or train line lengths are broadly available. Yet, statistical and historical data on walking and cycling infrastructures such as bike parking facilities, pedestrian crossings or the quality of sidewalks are scarce, since only a few municipalities, monitor street infrastructures in detail. Moreover, the exact number of transport service providers and of taxi companies requires regular monitoring activities or market analyses. Hence, survey data are important sources of information for assessing the availability of transport options. There is moreover a lack of data on local modal splits, since mobility behavior surveys require intensive personal and financial resources. The consequence is that in Serbia, modal splits have only punctually investigated in the context of certain studies such as the SmartPlans for Belgrade and Kruševac. Hence, for analyzing the availability dimension, the GETS survey data on modal splits as well as on personal ratings regarding the availability of transport options have also been taken into account.

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<sup>4</sup> This extends the approach defined by Carruthers et al (2015), according to which the dimension of “availability” refers to route possibilities, timings and frequency of transport services. Since this definition focuses on public transport and overlaps with the geographical definition of accessibility, which is mainly defined by public transport and road network density and service frequency as the main factors determining the ease of reaching a destination, GETS study included additional varieties of transport options.

## Walkability

**Table 4: Baseline and benchmarks for the Availability KPIs – Walkability**

Indicator	Serbia	Performance criteria		
		Low	Medium	High
<b>Walkability</b>				
Share of walking per total trips (%)	Total:36% Women: 39% Men: 31%	< 35	35 – 40	> 40
Gender differences regarding walking (in % points) (women minus men)	8%	> 6	4 – 6	< 4
Pedestrian fatality rate per 100,000 inhabitants <sup>2</sup>	2.2 (151 in total)	0	2 – 0	> 2
Share of men and women among pedestrians died in accidents <sup>2</sup>	Women: 38% Men: 62%			
Pedestrian injury rate per 100,000 inhabitants <sup>2</sup>	40 (2,806 in total)	> 50	50 – 30	< 30
Share of men and women among pedestrians injured in accidents <sup>2</sup>	Women: 44% Men: 56%			

Sources: GETS survey

<sup>2</sup> ABS (2019)

**Gender differences in average modal share of walking for Serbia are smaller than for other modes of transport.** The GETS survey recorded an average share of 31% walking trips among men and 39% walking trips among women, which makes difference of 8 percentage points. These gender differences are indeed less pronounced than the European average of 15 percentage points (CIVITAS 2014).

**Quantitative data on availability of sidewalks are missing, but qualitative data point out to their low quality.** According to GETS qualitative survey findings, the availability of walking options is below satisfactory due to the inadequate and unsafe infrastructure for pedestrians (e.g. deficient sidewalks). The sidewalks are sometimes very narrow, which slows down and makes difficult for pedestrians to move. The interviewed experts claim that there are also many districts with derelict sidewalks even in Belgrade. According to the Belgrade FGDs, there are not enough pedestrian zones and walking takes too much time for commuting. In other cities such as Subotica, FGDs revealed that there is a lack of parking space in Subotica, resulting in sidewalks being used for parking, usurping the sidewalks. This is the case in other cities as well: in parts of the city which are closer to the center, sidewalks are used for parking, because there is not enough parking space. In these situations, female pedestrians must use streets for walking, thus endangering their safety. On the other hand, qualitative data point out that special emphasis is placed on the safety of children in school areas. In many municipalities, sidewalks with protective railings have been placed next to schools. However, due to the inadequate traffic culture and law enforcement, drivers often drive too fast in settlements and even close to schools.

**There is a mixed score regarding the official statistics on pedestrian deaths and injuries.** In 2019, 151 pedestrians died on Serbian streets. The pedestrian fatality rate of 2.2 per 100,000 inhabitants is high compared to the EU average of 1.1 although some countries also show higher rates, for instance, 2.6 in Romania 3.6 and 2 in Latvia 2 (ERSO, 2018). There was a total of 2,806 injured pedestrians which is 40 per 100,000 inhabitants. Contrary to the GETS survey findings on the higher share of walking among women, they are not overrepresented among killed and injured. In Serbia, a quarter of all people killed in traffic accidents as well as 14% of total number of injured road participants were pedestrians (data for the period of 2014-2018). The majority of dead or injured pedestrians are aged between 46 and 64 years (RTSA 2019c).

## Cyclability

**Table 5: Baseline and benchmarks for the Availability KPIs – Cyclability**

Indicator	Serbia	Performance criteria		
		Low	Medium	High
<b>Cyclability</b>				
Bike ownership (in %)	Total: 58% Men: 63% Women: 53%	< 60	60 – 84	> 84
Share of cycling trips per total trips (modal share of cycling) (in %)	Total: 7% Women: 6% Men: 8%	< 5	5 – 25	> 25
Gender differences regarding cycling (percentage points) (men – women)	2%	> 10	3 – 10	< 3
Rating the availability of cycling as local mode of transport (1-not available at all; 6- very available)	Total: 4.9 Women: 4.8 Men: 4.9	<3	3-4	> 4
Cyclists fatality rate per 100,000 inhabitants	0.5 (total 38)	> 4	4 – 0	0
Share of men and women among cyclists died in accidents, in % <sup>2</sup>	Women: 11% Men: 89%			
Cyclists injury rate per 100,000 inhabitants	20.6 (total 1,432)	> 40	40 – 10	< 10
Share of men and women among cyclists injured in accidents, in % <sup>2</sup>	Women: 37% Men: 63%			

Source: GETS survey

<sup>2</sup> ABS (2019).

**Gender differences are prominent with men owning and using bicycles more than women.** A total of 58% of respondents own a bike, with significant gender gap of 10 percentage points. The gender gap is the lowest in flat and cyclist- friendly Vojvodina, where there is generally highest share of bicycle owners in comparison to other regions (see Table 6).

**Table 6: Bike ownership per region and gender, in %**

Region	Man	Women
Belgrade	49	41
South and East Serbia	64	51
Šumadija and West Serbia	58	46
Vojvodina	79	72

Source: GETS survey, n=2,400

**Cycling seems to be moderately popular in Serbia.** Bike trips account for 6% of total trips of women and 8% of total trips of men. This is close to e.g. Germany where 11% of all trips are made by bike, but it is much lower in comparison to certain European cities that are particularly cycling-friendly, like Münster (Germany), Leiden (Netherlands) or Copenhagen (Denmark), where the modal share of cycling exceeds 30% (EPOMM 2019).

**The rating of availability of cycling as local mode of transport is relatively high (4.9 out of 6 points), with insignificant gender differences.** However, the qualitative research findings indicate **low quality of cycling infrastructure** due to the lack of bike lanes, except in few places, such as Subotica and Novi Sad. For example,

there are only two bicycle lanes in Kruševac on opposite sides of the city and not connected. Interviews suggest that cycling infrastructure could contribute to allowing residents who live in areas along the state roads better access to the city center. Underdeveloped cycling traffic is partly due to the lack of awareness of decision-makers and planners of the needs of cyclists (interview).

**Official statistics points out to a moderate to high safety for cyclists.** With a total of 38 lethal cyclists' accidents (0.5 per 100,000 inhabitants) and 1,432 injured (20.6 per 100,000 inhabitants). The majority of killed and almost two thirds of injured cyclists are men. The rate of cyclist fatalities always rises with the modal share which is low in Serbia compared to other EU countries (e.g. 0.7 in Hungary, 0.6 in Belgium; ERSO, 2018b).

### Available public transport options and transport services

**Table 7: Baseline and benchmarks for the Availability KPIs – public transport and transport services**

Indicator	Serbia	Performance criteria		
		Low	Medium	High
<b>Available public transport options</b>				
Share of use of public transport per total trips (in %)	Total: 19% Women: 23% Men: 14%	< 60	70 - 80	> 80
Gender differences regarding use of public transport (in % points) (women minus men) <sup>1</sup>	9%	> 6	4 - 6	< 4
Rating the availability of public transport (1-not available at all; 6- very available)	Total: 3.8 Women: 3.8 Men: 3.8	<3	3-4	> 4
<b>Available transport services</b>				
Shared mobility services	No shared mobility services	Bike sharing	Bike and car sharing	More sharing services

Source: GETS survey

**The share of use of public transport per total trips is low with significant gender gap** (9 percent points) as women much more than men use public transport (23% vs. 14% of total trips).

**The availability of the public transport is not satisfactory.** Approximately every third person states that public transport is available, with no significant gender differences. However, **there are significant regional differences with residents of Vojvodina most often claiming that public transport is not available and residents of Belgrade the least often claiming the same. Perceived availability of public transport is moderate** with rating score of 3.8 points out of 6 and with no gender differences.

**Taxi services, are moderately available, and used more by women than men.** Almost two thirds of the sample (63%) state that they are available with no gender differences. Availability is lowest in Belgrade (53%) compared to 65% in South and East Serbia, 68% in Šumadija and West Serbia and 64% in Vojvodina. On the other hand, taxis services are less available in rural (56%) than in urban areas (67%). Taxi services are rarely utilized, but more often by women than men. While 8% of men and 13% of women use it once a week or more often, 16% of men and 21% of women use it several times a month.

**Availability of shared mobility services is very limited and no gender differences are observed in this regard.** Except for car or bike rentals, shared mobility offers are still very limited in Serbia. About 90% of both men and women do not use car sharing or rental cars at all, while 4% of the women and 5% of the men use it less than once a month. Apart from one ride hailing service in Belgrade (Car:Go), professional car or scooter sharing services are not available in Serbia yet. The only shared mobility options are bike rentals that are

available in several cities, with 15 stations in Belgrade, one station in Niš, ten stations in Novi Sad and five stations in Subotica (data from interviews) but mainly distributed around recreational areas.

### Adequate infrastructures for MIT

**Table 8: Baseline and benchmarks for the Availability KPIs – MIT**

Indicator	Serbia	Performance criteria		
		Low	Medium	High
<b>Adequate infrastructures for MIT (Motorized Individual Transport)</b>				
Modern paved road as a proportion of total road length (in %) <sup>2</sup>	66%	< 60	60 - 85	85-100
Percentage of households owning at least one car <sup>1</sup>	69%			
Percentage of households in which at least one car is registered on women <sup>1</sup>	32%	<30%	30-40%	41-50%
Percentage of households owning at least one motorcycle <sup>1</sup>	9%			
Rating the availability of car as driver (1-not available at all; 6- very available) <sup>1</sup>	Total: 4.7 Women: 4.4 Men: 5.0	<3	3-4	> 4
Car drivers fatality rate per 100,000 inhabitants, 2018 <sup>3</sup>	3.4 Total 239	> 2	0 - 2	0
Share of men and women among car drivers died in accidents 2018 <sup>3</sup>	Men: 93% Women: 7%			
Car drivers injury rate per 100,000 inhabitants <sup>3</sup>	184.9 (total 12,879)	> 100	30 - 100	< 30
Share of men and women among car drivers injured in accidents 2018, in % <sup>3</sup>	Men: 79% Women: 21%			
Car passengers fatality rate per 100,000 inhabitants, 2018 <sup>3</sup>	1.6 Total 108	> 2	1- 2	< 1
Share of men and women among car passengers died in accidents 2018, in % <sup>3</sup>	Men: 58% Women: 42%			
Car passengers injury rate per 100,000 inhabitants in 2018 <sup>3</sup>	7,235	> 50	20 - 50	< 20
Share of men and women among passengers injured in accidents 2018, in % <sup>3</sup>	Men: 44% Women: 56%	> 80	10 - 80	< 10

Sources:

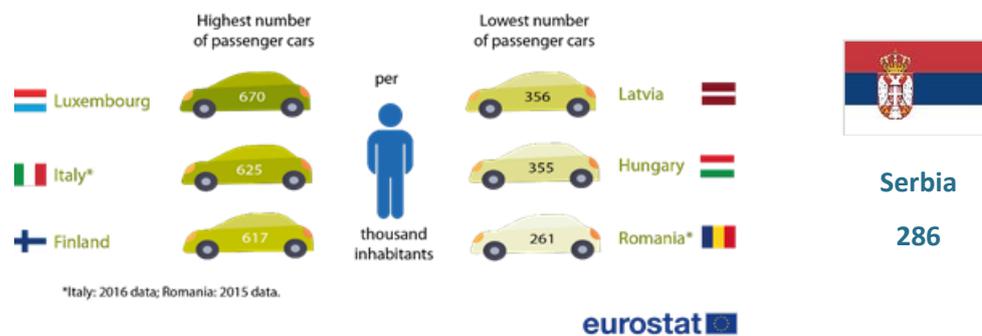
<sup>1</sup> GETS survey <sup>2</sup> Statistical Office of the Republic of Serbia <sup>3</sup> RTSA, 2019

**Generally, car ownership rates are lower in Serbia than in EU, and there is a significant gender gap in car ownership.** In Serbia, 1,000 people averagely owned 286 cars in 2017 (SORS 2019a),<sup>5</sup> which is much lower than in many EU countries (see Figure 11). Restricted financial resources are indeed the main reason for not owning a car: half of the respondents (48%) claim that they simply cannot afford a car. While 69% of households participated in the survey have at least one car, in only 32% of cases (at least one car) is owned

<sup>5</sup> There are significant regional differences in car ownership. The rates are higher in more developed parts of the country. However, car ownership rates are growing in less developed areas. Compared to 2011, the index of ownership of passenger cars has increased in South and East Serbia (138 in 2018) more than in Šumadija and West Serbia (117), Vojvodina (117), and Belgrade (119) (RZS, 2019; own calculation). Higher growth rates are probably a consequence of lower baseline. However, they do point out to a more equal access to MIT.

by women (registered on her name). Women are slightly more often owners of cars in urban than rural areas (34% versus 28%), in Belgrade (39%), then in Vojvodina (31%), West Serbia and Šumadija (31%), and the least in South and East Serbia (26%). The gender gap is also higher in rural areas where in only 28% of households with at least one car, a car is owned by woman. **Women also rate availability of car as driver much lower than men, which is consistent with their lower car ownership rate** (4.4 vs. 5.0 out of 6.0 points).

**Figure 11: Serbia and EU Member States with the highest and lowest number of passenger cars per thousand inhabitants, 2017**



Source: Eurostat 2019a, RZS data

**Among well-off household car ownership rate is higher and gender gap lower than in lower income households.** The car ownership rates are much higher among households that are highly ranked according to the subjective economic status than among households with lowest economic status (77% vs. 54%). At the same time the gender gap in car ownership is the lowest among households with highest economic status, as in 45% of cases at least one car is registered on woman, while in the case of households with lowest economic status car is registered on women in 34% of cases.

**Drivers' safety measured by the number of killed and injured in traffic accidents is low.** Compared to pedestrians and cyclists, drivers and passengers are at much higher risk in traffic. In 2018 there were 239 lethal car drivers' accidents with 3.4 killed per 100,000 inhabitants. In general, public risk of being a killed in a traffic accident, expressed as a probability per 1,000,000 inhabitants is much higher than in EU (82 compared to 50 in 2018) (RTSA, 2019: 10). More men than women die in car accidents whether as drivers or passengers, while women are majority among injured persons as car passengers (table 8).

### 3.2.2 Accessibility

#### Key findings:

- Women have lower access to driving cars and motorbikes due to the lower possession of driving licenses.
- The rate of female license-holding is considerably lower in comparison to developed EU countries.
- Because of both lower availability (which is due to the low ownership) and lower accessibility (which is due to the lower possession of licenses), women are more reliant on others to drive them, on public transport and on walking.
- Due to the limited access to cars, mobility of women in Serbia is much more restricted in cities with a deficient public transport network. This is caused by long travel and waiting time.
- Accessibility of key points of interests (POIs) is not bad mainly because the key educational, health care and other facilities are within reach of 3 km for majority of population.
- Gender differences in accessibility are the most prominent in relation to cultural and recreational activities as much more women than men reported that they give up of those activities due to the inaccessible transport. This is not surprising having in mind previously noted dependence on others or on public transport in mobility.

**Accessibility consists of three main components: access to individual and public transport, access to transport infrastructures and access to personal POIs.** Access to individual and public transport and to transport infrastructures can be assessed by geographical and spatial analysis. However, personal POIs are dependent on individual choices and preferences regarding healthcare, childcare, education, employment and shopping, leisure time activities or social networks of family and friends. Transport infrastructure in terms of road and public transport networks as well as public and private transport services have the function to connect these POIs within a certain time, distance and cost (ESPON et al. 2013).

**Accessibility also means access to opportunities.** Accessibility is here understood not only in narrow sense as access to infrastructure and transport modes. It is also understood in broader sense as access to opportunities, such as employment, health care, education, or other activities. This is partly assessed in the section on POIs but in more details in the section on social inclusion.

**A place with "high accessibility" is defined by the number of destinations that can easily be reached with adequate resources of time, efforts and costs.** On the other hand, "low accessibility" implies that reaching these destinations is more difficult or cost-intensive (Salif et al. 2018). Apart from objective accessibility factors defined by geographical and infrastructural characteristics, it is important to also consider the perceived accessibility that includes subjective aspects, such as attitudes towards different modes of transport or personal levels of comfort with the given transport options (Lättmann 2018).

**Accessibility is gender relevant as it impacts economic situation and organization of daily life.** In areas without any public transport service, access to a motorized vehicle is the only option for reaching the workplace or other POIs. Living in areas with a low accessibility can therefore considerably impair the daily life situation of individuals and groups that do not have access to a private car. According to international studies, women with primary care and household duties often show more complex daily life organization than men, represented by a higher number of daily trips as well as of "trip chains". Overall, limited access to work, health, education and shopping facilities can contribute to less spare time (Duchène 2011). Different international mobility studies indeed found that accessibility can be improved by strengthening last-mile mobility transport options by implementing car- or bike-sharing services and by investing in safe infrastructures for active modes (e.g. DLR et al. 2016, Baptista et al. 2014). In addition, limited accessibility has a considerable impact on the economic growth of a city or region. Hence, the provision of an easy access to individual POIs by a variety of transport modes is an essential element for reaching gender equality in the transport sector.

**Accessibility is measured by a combination of objective infrastructural and subjective individual indicators.**

Objective indicators include infrastructural (e.g. number of public transport stations) and service characteristics (e.g. bus or train frequencies) with social factors such as distances to frequently visited, important personal destinations (e.g. workplaces, leisure time activities). For assessing the accessibility of transport systems, three Key Performance Indicators (KPIs) and sub-indicators have been defined for the GETS study:

- **Access to motorized individual and to public transport:** While ownership of cars and motors indicates availability of these transport options, the possession of driving licenses is precondition for accessibility. Similarly, public transport subscriptions are an indicator for the individual access to public transport.
- **Density of transport networks:** The density of road and public transport networks is an important indicator for the ease of reaching destinations at a certain location. In this context, the distance to the next public transport station and the frequency of service define the objective accessibility of destinations by public transport. Services such as real-time information on delays and disruptions have an impact on the perceived accessibility of public transport.
- **Access to POIs:** Personal POIs as well as the frequency of visiting them is dependent on personal routines. For daily mobility, the workplace is an important destination, but also further places such as health care facilities, kindergartens or schools are important destinations for fulfilling daily needs. The accessibility to POIs can be measured by distances and time travelled to these destinations.

**Some data are missing.** As in many other countries, data on driving licenses are not systematically matched with population register data on the local level. Therefore, official statistics could be misleading regarding the total numbers. As alternative, the ratio between male and female owners of a driving license can give a hint on local gender inequalities at a certain location.

### Access to individual and public transport

**Table 9: Baselines and benchmarks for the Accessibility KPIs – individual and public transport**

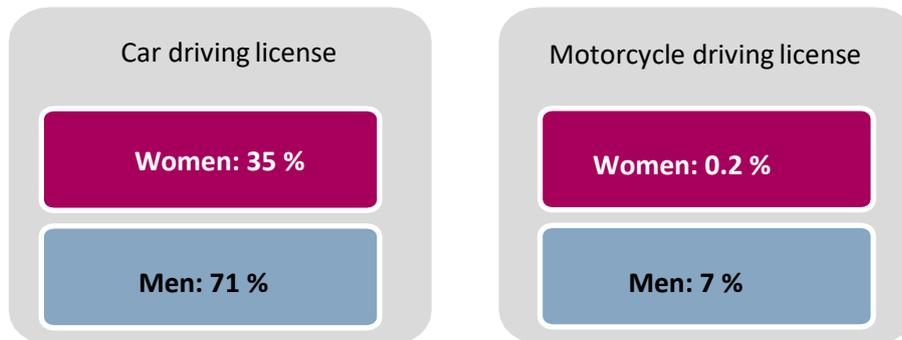
Indicator	Serbia data	Performance		
		Low	Medium	High
<b>Access to individual and public transport</b>				
Ownership of car driving licenses (%) <sup>2</sup>	Man: 71% Women: 35%	< 55	55 - 75	> 75
Gender difference for car driving licenses (in percentage points)	36%	> 20	10 - 20	< 10
Possession of motorcycle driving licenses in % <sup>2</sup>	Man: 6.6% Women: 0.2%	< 55	55 - 75	> 75
Gender difference in motorcycle driving licenses (in percentage points) <sup>2</sup>	6.4%	> 20	10 - 20	< 10
Distance to next PT station (m) <sup>1</sup>	Total: 831 Rural: 910 Urban: 780	> 500	500 - 300	< 300

Source: <sup>1</sup> GETS survey <sup>2</sup> Traffic Police Directorate

**More men than women have car and motorcycle driving license.** The driving license is a prerequisite for using cars and motorcycles. According to official statistics, 71% of the adult men, but only 35% of adult women own a driving license as a basic requirement for driving a car in Serbia (Traffic Police Directorate

2019). The rate of female license-holding in Serbia is considerably low in comparison to other countries like Germany (76%, BMVI 2019) or the United Kingdom (67%, DfT 2019). Likewise, the rate of female motorcyclists is also much lower than the rate of male motorcyclists (see Figure 12). Among persons possessing motorcycle driving license 97% are men and only 3% are women (Traffic Police Directorate 2019). Qualitative survey indicates a cultural pattern related to license and car ownership. Participants state that, “from a young age, we behave as if boys are predestined to drive cars” (men buy cars) and this that attitude is confirmed later, as this is our mentality. Participants also stated that “we treat girls as if the car is not for them, we deter them, while we support the boys”.

**Figure 12: Driving license ownership for cars and motorcycles per gender**



Source: Traffic Police Directorate 2019

**When it comes to MIT there is a prominent gender imbalance in mobility.** The car and license ownership structure as well as prevailing cultural patterns have two consequences (1) **gender imbalance in mobility due to the more prominent restrictions in female mobility** and (2) **transport patterns that are more the outcome of restrictions than choices.**

**Women face difficulties in using MIT** due to low car ownership and low possession of drivers' licenses. The situation is nicely captured by a participant in the FGD: “On the territory of Kruševac a big number of women does have a driver license, but in most cases, they just keep it in their purses. Family car is usually driven by their husband while they walk use the public transport. Women who work and don't have the same working hours as their husbands use public transport or walk to work while their husbands use the family car”.

**Driving a car means facing numerous external obstacles as well.** Qualitative survey shows that even those who drive a car face difficulty in everyday transport. Their biggest source of stress is the lack of parking spaces. Respondents state it is a “mission impossible” to find parking in the city center, even in peripheral areas. In addition, when a parking spot is found, the time limit for parking is 60 minutes, and sometimes this is not enough. Qualitative survey also shows there are prejudices that women are bad drivers. On the other hand, participants think women are much more careful and more conscientious than male drivers, and have more respect for rules. Men are mostly those who commit traffic violations.

**There are no gender differences regarding the distance to the nearest bus stop or train station, but there are certain differences in relation to the type of settlement.** An average distance to the nearest train station in rural areas is 5.3 km, while in urban areas this distance is twice as smaller – 2.6 km. Differences are considerably smaller regarding distance to the nearest bus stop. In rural areas an average distance to the nearest bus stop is 0.9 km, while in urban areas the nearest bus stop is on average 0.8 km away. Even though distance is the same for men and women living in the same location, the full picture on the distance of public transport stations should take into account that (1) the significance of public transport in overall mobility is higher for women and (2) that they use more combined transport means during single trip and (3) depend more on other who bring them to the public transport stations. Therefore, the **subjective weight attributed to the same distance could be different for men and women.**

### Density of transport networks

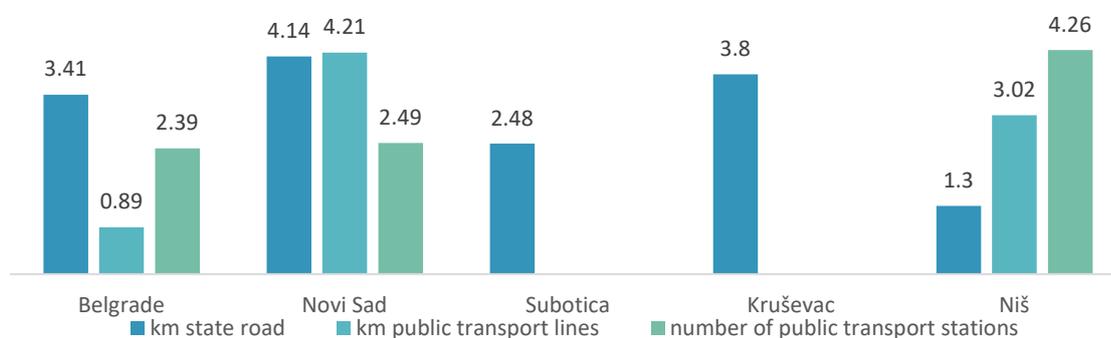
**Table 10: Baselines and benchmarks for the Accessibility KPIs – density of transport networks**

Indicator	Serbia data	Performance		
		Low	Medium	High
<b>Density of transport networks</b>				
Length of road per 100 inhabitants (km)	Modern roads: 29,681km or 0.4km per 100 inhabitants	< 2.5	2.5 - 4	> 4

Source: Statistical Office of Serbia

**The public transport density differs considerably between localities.** The density is measured by public transport line lengths. Overall, Novi Sad ranks best regarding the ratio of state roads and public transport lines per inhabitant while the number of stations per capita is highest in Niš (see Figure 13). Typical for cities in the countryside, transport infrastructure in Subotica and Kruševac predominantly consists of state roads whereas local public transport is barely available and the frequency of bus services is low, according to the expert interviews shared during the GETS qualitative survey and the analysis of OSM data.

**Figure 13: Length of state roads, public transport lines and number of public transport stations per 1,000 inhabitants per city**



Source: Interviews and SORS 2019

**Due to the limited access to cars, mobility of women in Serbia is much more restricted in cities with a deficient public transport network.** In Subotica or Kruševac, for instance, FGD participants confirmed that deficient public transport connections have considerable impact on their daily life organization since waiting times at bus stations can amount to 1.5 hours, unreliable schedules and irregular services result in considerable leisure time restrictions for women. Yet, time constraints due to inadequate transport networks are also dependent on distances to personal destinations such as workplaces or health services.

### Access to POIs

**More attention to this aspect of transport is paid in the chapter on social inclusion.** In this section, it is important to note that transport influences the opportunities for employment and social participation and it is measured through accessibility in relation to the points of interests.

**Table 11: Baselines and benchmarks for the Accessibility KPIs – access to POIs**

Indicator	Serbia data	Performance		
		Low	Medium	High
<b>Access to POIs<sup>1</sup></b>				
Share of population reaching childcare facilities in 0 - 3 km (%) <sup>6</sup>	81	< 65	65 - 85	> 85
Share of population reaching schools in 0 – 3 km (%) <sup>6</sup>	81	< 65	65 - 85	> 85
Share of population reaching university in 0 – 3 km (%)	Total: 81 Women: 26 Men: 32	< 65	65 - 85	> 85
Share of population reaching workplaces in 0 - 3 km (%)	Total: 40 Women: 38 Men: 41	< 65	65 - 85	> 85
Share of population reaching healthcare facilities in 0 - 3 km (%)	Total: 64 Women: 63 Men: 65	< 50	50 - 75	> 75
Share of population restraining from cultural and recreational activities due to the lack of transport, in %	Total: 52 Women: 55 Men: 46			

Sources: <sup>1</sup> GETS survey <sup>2</sup> Traffic Police Directorate <sup>3</sup> Statistical Office of the Republic of Serbia

**People tend to choose preschool and primary and secondary school facilities that are in relative proximity to their homes.** Most respondents (over 80%) indicated that preschool and school facilities are within the distance of 3 km. Gender differences are not presented for these indices, as survey instrument did not allow to measure attendance and distance for every child in the household that would be possible do disaggregate by gender.<sup>7</sup>

**Gender differences are observable in relation to the access to university,** as among female students the share of those who attend the university within the 3 km distance is lower than among male students. Gender differences are not prominent regarding the access to health care.

**There are gender differences in access to transport to workplace.** Women more often walk to work or use public transport, while men most often commute by driving a car. On the other side, the average distance for both women and men from how to workplace is 8.5km in one direction.

**Due to the lack of transport means women restrain more often than men the attendance of cultural and recreational activities.** While there are no significant gender differences in restraining activities or access to POIs due to the inaccessible transport, such as educational, shopping, health care, there is difference in accessing cultural and recreational activities. With almost ten percentage points difference, women claim more often than men that they give up of attending cultural events and recreational activities due to the lack of transport.

<sup>6</sup> Data are not presented by gender as respondents were 18+. Data on gender on persons taking children in the preschool or school are presented in the chapter on use of transport in access to social services.

<sup>7</sup> The question was if any child in the household is attending.

### 3.2.3 Affordability

**Key findings:**

- Overall, there are no significant difference in the perception of affordability of public transport and cars between men and women.
- The gender gap in the perception of affordability is the highest among persons living in a lowest income household.
- Gender differences of monthly expenditure on transport increases within income level of the household. In the lowest income households gender gap is negligible, while the biggest gender gap is in highest income households, with men spending on average much more than women.
- Public transport is generally perceived as affordable, though the rate is lower as we go down the socio-economic ladder. Socio-economic status also effects affordability of cars.
- There is a prominent gap in resources available to men and women due to lower women's employment rate and a gender pay gap.

**Affordability relates to the financial costs of traveling and potential restrictions these costs place on mobility.** According to Caruthers et al. (2005) "Affordability" is defined as the "extent to which the financial cost of journeys put an individual household in the position of having to make sacrifices to travel or the extent to which they can afford to travel when they want to" (Caruthers 2005). Hence, affordability is the relation between individual financial resources and costs for public or private modes of transport, which could lead to restrictions in personal mobility in terms of choice of time and mode of transport. In this sense, the definition is closely related to the concept of "transport poverty" that also refers to limited "interacting with (whole extent of) opportunities offered by society" due to limited financial resources (Bauman 2000, Titheridge et al. 2014).

**Economic capital of the individual and the household strongly determine mobility options.** Different financial resources of men and women determine the individual budget for travelling. A higher income implies that the person can afford a car that is the most flexible, comfortable and available means of transport, while low income restricts the mobility options, in case of poverty to walking or cycling.

**Key Performance Indicators for the Affordability** dimension of gender equality in transport are:

- **Resources for transport:** Expenditures for private motor vehicles, public transport, taxi or minibus trips per month in relation to the household or personal income give an overview on how transport costs effect the spendable budget of each household or person. Moreover, the unemployment rate per gender provides insight in differences regarding life organization and personal financial budgets.
- **Affordability of transport modes.** Annual or monthly public transport subscriptions indicate that a person has regular access to public transport and moreover saves costs with regular subscriptions. Gender differences in incomes reflect on the possibility to purchase and own car and consequently influence the availability of this mobility option for women and men.

## Resources for transport

**Table 12: Baselines and benchmarks for the Affordability KPIs – resources for transport**

Indicators	Serbia data	Performance		
		Low	Medium	High
<b>Resources for transport</b>				
Gender differences in employment rate, population old 15+, in % <sup>1</sup>	Total: 48 Women: 40 Men: 55 Gender difference: 15	> 10	10-5	< 5
Index of gender monthly earnings (Men=100) <sup>2</sup>	Total: 66,251 Women: 62,792 Men: 69,120 Women=91	<85	85-95	>95
Monthly expenditure for transport as percentage of total household expenditure in % <sup>3</sup>	9.3			

Sources:

<sup>1</sup> SORS, Labor Force Survey 2018

<sup>2</sup> SORS, 2018b, 2018: 2, September 2018, in RSD

<sup>3</sup> SORS, 2018c: 37

**Official statistics indicates that almost one tenth of the household income is spent on transport costs.**

Statistic on expenditures, including transport expenditures, are regularly collected by the Statistical Office of the Republic of Serbia through Household Budget Survey. However, data are collected and presented for household level and information on individual incomes and expenditures disaggregated by gender are not available. According to these data, almost one tenth of household incomes is spent on transport costs. Regional differences are not prominent (SORS, HBS 2018: 37).

**Indirect indicators, however, point out to certain gender differences.** In order to get insights in gender differences in economic resources, two proxy indicators were used: the level of employment and monthly earnings. Both are obtained from the official statistics. Data indicate prominent gender differences in employment, with over 15 percentage points difference in favor of men and gender gap in monthly earning among employed persons with women's earnings at the level of 91% of men's earnings. **This indicates lower financial resources available to women based on personal employment that could be used for transport costs.**

## Affordability of transport modes

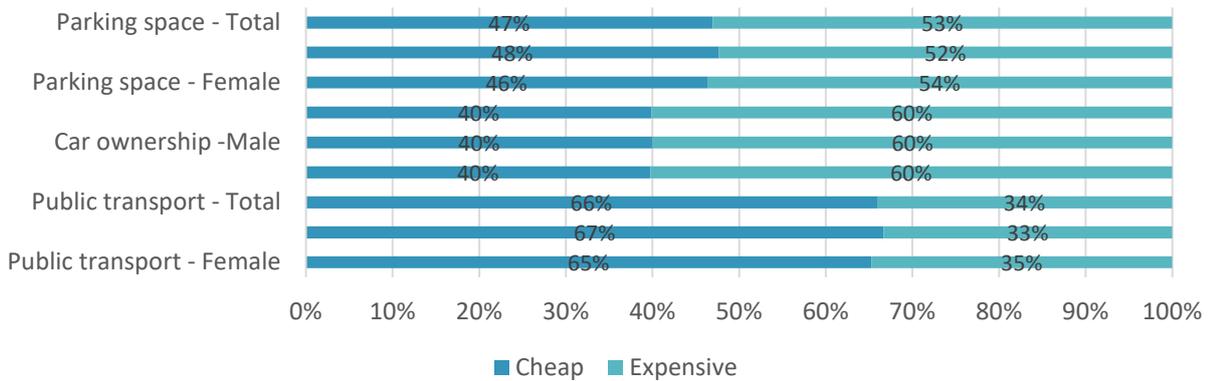
**Table 13: Baselines and benchmarks for the Affordability KPIs – resources for transport**

Indicators	Serbia data	Performance		
		Low	Medium	High
<b>Affordability of transport modes</b>				
Percentage of people perceiving car transport as expensive	Total: 34% Women: 35% Men: 34%			
Percentage of people perceiving public transport as expensive	Total: 41% Women: 41% Men: 40%			
Percentage of people perceiving parking space as expensive	Total: 53% Women: 54% Men: 52%			
PT monthly or annual subscription (%)	Total: 29% Women: 35% Men: 22%	> 15	15-5	< 5

Source: GETS user survey

**No gender differences regarding the perception of affordability of public transport were recorded.** Both female and male respondents state that public transport is cheap (women 65%, men 67%). On the other hand, both women and men perceive cars and parking places as expensive (see Figure 14). Socio-professional status has no significance on the perception of affordability, except for unemployed persons, where most unemployed women perceive car ownership as very expensive (women 47%, man 37%).

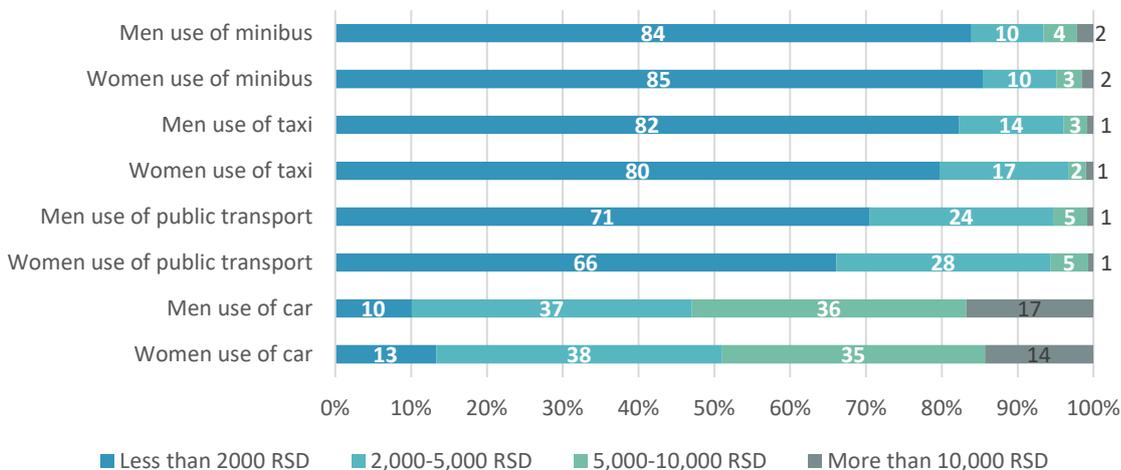
**Figure 14: Perception of affordability of public transport and car as expensive, by gender, in %**



Source: GETS survey, n=2,400

**There are gender differences in monthly expenditures on different modes of transport.** Majority of women and men spend less than 2,000 RSD monthly on public transport, minibus and taxi. However, there are some differences. There is higher share of those who spend more than 2,000 RSD on public transport among women than among men (34% vs. 30%), as well as those who spend more than 2,000 RSD on taxi (20% vs. 18%). At the same time, men spend more frequently than women over 2,000 RSD on cars (90% vs. 87%). Gender gap in spending on car is small in households with lower economic status<sup>8</sup> and most prominent in the households with high economic status where men spend much more than women. These tendencies are in accordance with mobility patterns of men and women.

**Figure 15: Monthly expenditure on different transport modes, by gender, in %**



Source: GETS survey, n=2,400

**Table 14: Perception of public transport as expensive by gender and economic status (in%)**

<sup>8</sup> Economic status is measured by subjective perception. Respondents could identify the economic situation of their household with one of the four options corresponding to the low, lower middle, higher middle and high economic status.

Subjective economic status	Expensive and very expensive public transport		Expensive and very expensive car ownership	
	Female	Male	Female	Male
We barely manage our life and frequently don't have money	34%	28%	52%	38%
We earn enough only for the basic things and live a very modest life	29%	28%	40%	43%
We earn more than basic income, but do not live in luxury	26%	28%	33%	37%
We have enough and can even afford some luxury things (expensive holidays, appliances, personal things)	29%	18%	44%	27%

**Economic status significantly affects affordability of MIT and determines the gender gap.** Women with lower self-perceived economic status drive less. The lowest driving rates are within households that assess economic status as low. Among them, 33% of women drive a car at least once a week, but 56% of men. As the self-perceived economic status rises, so does the share of women who drive at least once a week. The biggest gender gap in driving is in among persons with middle economic status, with difference of 34 percentage points between women and men who drive car at least once a week.

**Figure 16: Share of respondents who drive a car or a motorcycle at least once a week per gender and self-perceived economic status of the household**



Source: GETS survey, n = 2,400

**Because they use public transport more than men, women have monthly tickets more often than men.** Monthly card/pass for use of public transport is in possession of 35% of women and 22% of men. There are differences between women of different activity status. The possession rate is highest among employed women (39%), somewhat smaller among inactive women (34%) and considerably smaller among unemployed women (26%). Gender differences are present in both urban and rural areas. While among women from rural areas 24% have monthly pass, among men 15% have such pass. In urban areas 42% of women and 27% of men have monthly pass.

**Qualitative research shows hidden costs that often obstruct mobility.** Participants who use suburban lines to go the city mostly complained about the high prices of the platform ticket. Suburban buses in the city center have separate docking bays at the main bus station, and they often must pay an additional RSD 190 for a platform ticket just to enter the station. The public transport ticket does not cover the costs of platform tickets, which then becomes a major monthly cost, considering that these women already pay a monthly public transport ticket.

### 3.2.4 Acceptance

#### Key findings:

- The most comfortable and attractive transport modes are walking and using car whether as passenger or driver for both, men and women.
- MIT is the most attractive (in terms of flexibility and comfort) transport means for women and men.
- Real time information on delays and disruptions is the most important aspect of attractiveness of public transport services, for both women and men, and regardless their activity, occupation, education, age or area of living.
- While for both, men and women, discomfort and unease in transport is related to the poor infrastructure, deficient vehicles, poor service, women indicate more often the reasons such as behavior of other people which poses different kinds of threats to them (pickpocketing and harassing people).
- Women are exposed more to the sexual harassment and discrimination in transport.
- Women generally perceive higher safety risks in all modes of transport than men.
- Contrary to the objective situation which indicates use of car as the most unsafe mode of transport, both women and men rate the car use whether as driver or as passenger as the safest mode of transport after walking.

**Acceptance is a dimension that is based on personal experiences and attitudes towards mobility and transport which are based on the objective characteristics of the transport.** Acceptance is the dimension that can still determine modal choice when a variety of transport options is available, accessible and affordable. In addition to attractiveness of different modes of transport, safety and security are key factors that determine modal choice, particularly for women and specific vulnerable groups (Carruthers et al 2015).

Therefore, the KPIs for measuring acceptance include sets of objective and subjective indicators along three key dimensions:

- **Safety and security in transport:** The feeling of safety is dependent on objective situation regarding the prevalence and frequency of accidents, in various types of transport, security measures such as staff at stations or CCTV devices, but also on personal experiences with violence and subjective feelings of unease in certain situations (e.g. at night).
- **Attractiveness of public transport and transport services** depends on its features such as punctuality, comfort, flexibility, which is important for effective daily routines as it can save time spent in transport, but also for overall quality of life.

**Data on this dimension are not systematically collected and some are addressed in the GETS survey.** Like for the other dimensions, particularly quantitative data e.g. on harassment or security measures at stations is missing. Therefore, this data has been addressed in the GETS survey as well as in the interviews.

#### Safety and security in transport

**Table 15: Baselines and benchmarks for the Acceptance KPIs – safety and security**

Indicator	Serbia data	Performance		
		Low	Medium	High
<b>Safety and security in transport</b>				
Average rating of safety of car transport as driver (1- not safe at all; 6- very safe)	Total: 4.5 Women: 4.3 Men: 4.6	<3	3-4	> 4
Average rating of safety of local public transport (1-not safe at all; 6- very safe)	Total: 4.1 Women: 4.0 Men: 4.2	<3	3-4	> 4
Average rating of safety of cycling (1-not safe at all; 6- very safe)	Total: 4.1 Women: 4.0 Men: 4.1	<3	3-4	> 4
Average rating of safety of walking (1-not safe at all; 6- very safe)	Total: 4.8 Women: 4.7 Men: 4.9	<3	3-4	> 4

People with experiences of sexual harassment per 100 inhabitants – any mode of transport (in %)	Total: 3.0 Women: 4.6% Men: 1.3%	> 14	2 - 14	< 2 goal = 0
People with experiences of discrimination per 100 inhabitants – any mode of transport (in %)	Total: 9.7% Women: 11.6% Men: 7.6%	> 14	2 – 14	< 2 goal = 0

Source: GETS survey

**Objective indicators on security-related infrastructure are not available.** This relates to indicators about CCTV, complaint mechanisms or lightning of objects and passages. However, FGDs clearly indicate a lack of these infrastructural preconditions for security and safety in public transport. As will be revealed in the following passages, this relates not only to perceptions and feeling of safety among female respondents/passengers, but also to a recorded experience of sexual harassment and gender based violence in public transport.

**There are consistent gender differences in perception of safety of transport: women perceive transport as less safe than men.** The ratings of men and women show significant differences. Men assign higher values of safety to almost all modes of transport (cars, walking, biking, local transport, trains, interurban transport), except for the category of cars as passengers which women rate as being safer. The youngest women rated intercity transport as far safer than women of other age categories, while the oldest respondents rated local transport and taxis as safer compared to the other age groups of women. In addition, women from households that cannot afford basic needs also consider the safety of cars, local transport and walking as unsafe, compared to women of higher economic status. Women of the highest economic status assign the highest safety value to walking (5.5). Regarding the type of settlements, men and women from rural settlements rate cars and cycling as safer than both men and women in urban settlements, which can be explained by the fact that the frequency of traffic in rural areas is lower, thus making the residents feel safer in traffic.

**Contrary to the reality, driving a car and being a passenger in a car is rated as safest transport modes.** Walking has received the highest safety ratings by both men and women (4.8), followed by the safety of driving a car (4.5), as well as using the car as passenger (4.5). The lowest safety values were assigned to cycling (4.1) and local transport (4.1).

**Table 16: Mean values for safety of different modes of transport**

1 = not safe at all 6 = very safe	Safety	
	Male	Female
Car as a driver	4.6	4.3
Car as a passenger	4.4	4.5
Taxi	4.2	4.2
Minibuses	4.1	4.0
Walking	4.9	4.7
Cycling	4.1	4.0
Local public transport (buses, tram)	4.2	4.0
Trains	4.3	4.1
Regional/ intercity buses	4.2	4.0

Source: GETS survey, n=2,400

**Women in transport not only feel less safe than men, but they are more often victims of sexual harassment and discrimination.** Experiences of sexual harassment in transport was reported by 5% women and 1% men.<sup>9</sup> Prevalence rate of discrimination in public transport and drivers of private vehicles is significantly higher than prevalence of sexual harassment: 12% of women and 8% of men stated that they have experienced

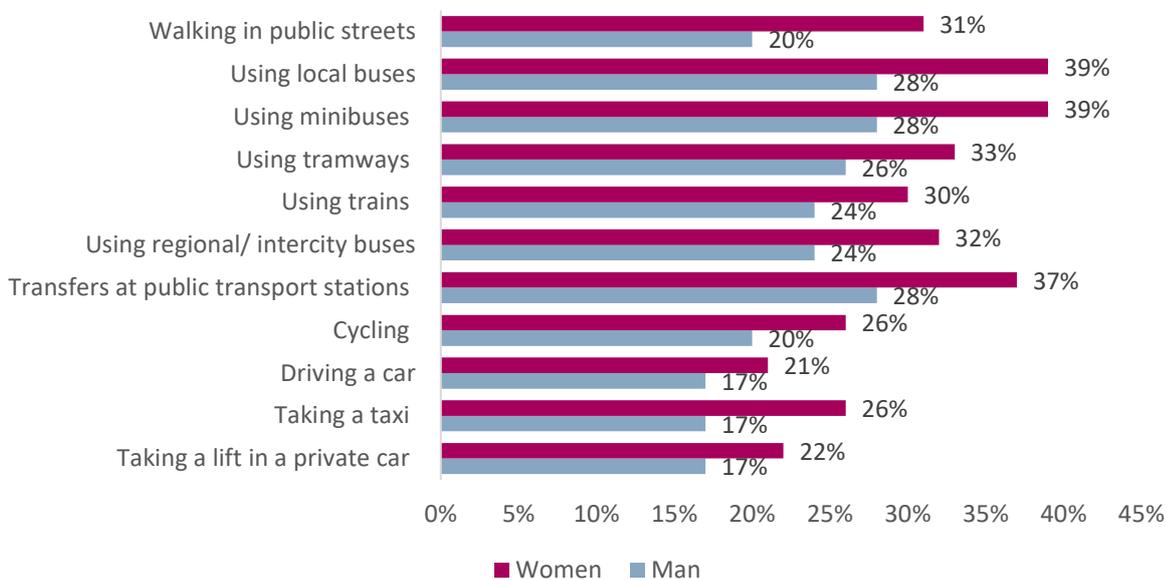
<sup>9</sup> Prevalence of sexual harassment is based on statements of respondents that they experienced sexual harassment by taxi driver or a private driver or a bus driver or a conductor, at least once.

discrimination perpetrated by drivers and conductors in public transport and drivers of private vehicles.<sup>10</sup> These are mainly (66%) urban women, of different age and mainly employed (74%).

**Qualitative data shed further light on experiences of discrimination and sexual harassment.** Findings based on FGDs with young employed women confirmed that women feel unsafe in public transport. Most women have had a personal experience or know someone who has experienced some form of sexual harassment, such as indecent touching, patting their body or hair, getting very close unnecessarily or comments from drunk passengers. They said these situations made them feel very uneasy and sometimes scared. In addition to this, almost all respondents had an unpleasant experience with taxi drivers. At the same time, this means of transport is the one they feel least safe in. Women are much more likely to pay attention to the safety of the vehicle and to the safety of the environment in which they are travelling. The qualitative research further reveals cases of discrimination, such as being thrown out of bus or being checked for bus ticket more thoroughly than men.

**Feeling uneasy in public transport is a rather common feeling for approximately one out of three women.** This is particularly the case with using local buses and minibuses, transferring at public stations, using tramways or walking in public streets. Women feel less unease/unsafe when taking a taxi, cycling and driving in a private car. Sometimes their mobility behavior is shaped by the perception of safety. E.g. most women in rural municipalities have used the same taxi driver for years, so they know them well and feel safe with him.

**Figure 17: Gender differences in feeling uneasy in transport**



Source: GETS survey, n=2,400

**Women more often than men feel uneasy while walking.** This is due to (1) deficient street infrastructures, such as poor lighting, dark corners (76% vs. 71%), (2) unsafe behavior of other people, such as pickpocketing, drunk people (59% vs. 46%), and (3) narrow tracks and lack of crossings (54% vs. 51%) which undermines safety of pedestrians.

**The same feeling of unease applies to cycling.** Both, men and women (without significant gender differences) feel uneasy riding a bike because deficient cycling infrastructures (no extra lane, bad road conditions), as well as because of behavior of other road users (cars and taxi drivers). Qualitative research shows that behavior of people in traffic is often perceived aggressive, rude, unsafe and many people violate traffic regulations. It has often been stated that the traffic culture in Serbia is poor, undeveloped and self-destructive - primarily due to poor supervision by the police whose task it is.

<sup>10</sup> Prevalence of experienced discrimination is based on statements of respondents that they experienced discrimination is harassment by taxi driver or a private driver or a bus driver or a conductor, at least once.

**Public buses are unpleasant to both women and men though women are more responsive to behavior of others.** Unpleasant feelings related to using public buses are for both, men and women (without significant differences) caused by deficient vehicles, broken seats, lack of lights, behavior of the bus driver. However, gender difference appears in relation to the behavior of other passengers (pickpockets, drunk people) which makes more often women than men uncomfortable (66% vs. 54%). Findings based on focus group discussions with young employed women confirmed that women feel unsafe in public transport because certain percentage of them have uncomfortable experiences while being in means of public transport or at bus stops (sexual harassment, being thrown out of public transport). For minibuses as well as for regional trains applies the same rule – individuals of both genders express highest level of discontent with limited number of vehicles (men somewhat more when it comes to minibuses), but in case of regional buses female population expresses feeling of discomfort caused by behavior of bus drivers as well as with behavior of other passengers (50% compared to 38% for men). Gender differences are not significant when it comes to men and women who drive though for respondents of both genders main factor that causes feeling of discomfort is behavior of other drivers (as high as 80% for both genders).

### Attractive public transport and transport services

**Table 17: Baselines and benchmarks for the Acceptance KPIs – safety and security**

Indicator	Serbia data	Performance		
		Low	Medium	High
<b>Attractive public transport</b>		Low	Medium	High
Rating comfort of public transport (1-not comfortable at all; 6- very comfortable)	Total: 3.4; Women: 3.3 Men: 3.4	<3	3-4	> 4
Rating flexibility of public transport (1-not flexible at all; 6- very flexible)	Total: 3.6; Women: 3.6 Men: 3.6	<3	3-4	> 4
<b>Attractive transport services</b>		Low	Medium	High
Rating comfort of taxi (1-not comfortable at all; 6- very comfortable)	Total: 5.0; Women: 5.0 Men: 4.9	<3	3-4	> 4
Rating comfort of minibuses (1-not comfortable at all; 6- very comfortable)	Total: 3.9; Women: 3.9 Men: 3.8	< 60%	60 - 90%	> 90 %
Rating comfort of intercity buses (1-not comfortable at all; 6- very comfortable)	Total: 3.7; Women: 3.6 Men: 3.8	< 60%	60 - 90%	> 90 %

Source: GETS survey

**GETS survey respondents are not comfortable with the public transport (buses, trams).** Only 22% feel comfortable while using these transport modes in general. As much as 49% are indecisive, while 30% do not consider it comfortable. When asked about specific modes, respondents are less critical: 33% feel comfortable with minibuses, 28% with train, and 30% with intercity/regional buses.

**Table 18: Mean values for rating the flexibility and comfort of different modes of transport**

1 = not good at all 6 = very good	Flexibility		Comfort	
	Male	Female	Male	Female
<b>Car as a driver</b>	5.1	4.8	5.5	5.2
<b>Car as a passenger</b>	4.5	4.7	5.3	5.5
<b>Taxi</b>	4.5	4.6	4.9	5.0
<b>Minibuses</b>	3.4	3.4	3.8	3.9
<b>Walking</b>	4.9	4.9	4.4	4.5
<b>Cycling</b>	4.6	4.4	4.1	4.0
<b>Local public transport (buses, tram)</b>	3.6	3.6	3.4	3.3
<b>Trains</b>	3.0	3.1	3.7	3.5
<b>Regional/ intercity buses</b>	3.5	3.5	3.8	3.6

Source: GETS survey, n=2,400

**Real time information on delays and disruptions is the most important aspect of attractiveness public transport services.** Both women and men emphasize this aspect of public transport. This is particularly the

case with the youngest (18 to 29 years). Among them 83% of women and 75% of men stated real-time information as a service that would make public transport more attractive. Gender differences are also prominent in relation to special offers in case of delay or disruption, that is more often stated by women.

**Table 19: Services that would make public transport more attractive, by gender (in %)**

	Share of agreement among men	Share of agreement among men
Real-time information on delays and disruptions	70	70
Route calculation	43	40
Information on other travel alternatives	42	41
Special offers in case of delays or disruption (e.g. taxi vouchers)	41	47

**MIT and walking are perceived as flexible means of transport.** Both genders rated the flexibility of car driving (mean value 5.0, 1=low flexibility, 6=high flexibility) and walking (4.9) very high. The ratings for cycling and using cars as passengers were also comparatively high. The lowest flexibility was attributed to trains (3.0) and intercity buses (3.5).

**MIT is perceived as comfortable transport means.** Both women and men state that driving a car (particularly for men) and being driven in a car as a passenger (particularly for women) are the most comfortable transport means.

**Men consider cycling and car driving to be more flexible than women do, while women attribute higher flexibility to car trips as passengers.** Regarding the economic status, both genders from the household who can afford a little more than basic needs assess the flexibility of the car as higher than the poorest respondents. Women from both types of settlements find local transport, trains and cars more flexible than men. This is consistent with the finding that women are more likely to use these types of vehicles than men. The oldest respondents of both genders rated local transport, trains and regional buses more flexible than younger respondents while rating the least flexibility to cars.

### 3.3 MOBILITY PATTERNS AND SOCIAL INCLUSION

#### 3.3.1 Mobility patterns related to employment

##### Key findings:

- Mobility patterns related to the employment are highly gender segregated, with men driving to job much more often than women, and women mainly walking to work or using public transport.
- Due to the lack of public transport and lower access to private cars, women living in rural areas are much more than women in urban areas dependent in mobility on others, and they are more often than women driven by someone else.
- Since women use more often than men public transport to go to work, they also complain more frequently on length of travel, delays and disruptions.
- It appears that transport is not perceived as an obstacle to employment for both women and men in urban and rural areas.

**Female mobility is important for economic development.** Besides human rights arguments, greater mobility and improved access is key for opening up a wider range of job choices for women and for creating economic growth on the local and regional level. A study by the International Labor Office, for instance, showed that in emerging economies, poor transport is estimated to reduce the probability of the women seeking any employment by 6 %. The negative impact was even larger for the developing countries with an estimated

reduction of 17 % (ILO 2017). At the same time, a report by the International Monetary Fund concluded that, when women are able to develop their full labor market potential, there can be significant macroeconomic gains (IMF 2013).

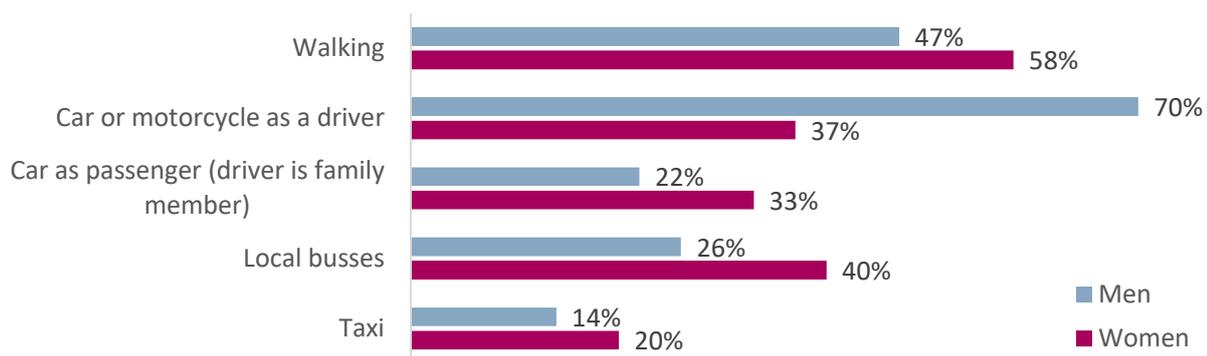
**Mobility patterns and modal choices can shape various aspects of individual and social life, including those related to social inclusion.** They are shaped by cultural patterns, financial resources and features of transport system. In the next instance, mobility patterns and modal choices are decisive for the freedom of choosing jobs, for recreational and leisure time activities and for creating and maintaining social networks. This section focuses precisely on the mobility patterns and modal choices related to various aspects of social inclusion. The first part deals with mobility patterns related to employment, second part deals with education, third is focused on access to public and social services, while the last one deals with mobility patterns and modal choices related to leisure and shopping.

**There is no significant difference among men and women in the average distance between workplace and home.** The average distance is around 8.5km in one direction for both cases. In contrast, there are noticeable differences between people from rural and urban areas. Respondents living in rural areas travel on average around 10.7km (one direction) from home to work while people living in urban areas travel shorter distances (7.4km).

**Apart from more or less similar commuting distances, there are gender differences with respect to the destination of commuting trips.** Nearly half of the women (47%), compared to a less than a third of the men (31%) work in the central district of their hometown. Additional 22% of the women work in the suburbs of their hometown. In contrast, more men (29%) than women (20%) work in another city or village. As conclusion, women seem to commute to city centers or suburbs while more men also commute to other places.

**Women walk to work or use public transport while men commute by driving the car.** Most international studies found that women tend to walk to work or use public transport while men commute by driving the car (e.g. Duchène 2011, Hanson 2010). In general, these tendencies can also be observed in Serbia (Figure 18).

**Figure 18: Modal choice for work-related trips of employed men and women**



Source: GETS survey, n=1,324

**Rural residents rely more on car or motorcycle both as driver and passenger.** Due to limited public transport options, much more people from rural areas than from urban areas are regularly driven to work by family members (36%) or other people, such neighbors (28%) (Table 20).

**Gender related differences in commuting to work follow the same patterns in rural and urban areas with some exceptions.** While in urban areas gender differences are significant in all modes of transport listed in the Table 20, in rural areas differences in cycling and using taxi for commuting to workplace are insignificant. Both women and men in urban areas more often walk to job than their counterparts in rural areas, but the gender gap remains prominent in both cases with women more often walking to job than men. Men in urban areas significantly more often than women go to workplace by bicycle. The gender gap is the biggest in using cars as drivers in both urban and rural areas in favor of men (difference in rural areas is 32% and in urban

areas 31%). There is clear pattern in using cars as passengers, with women in both, urban and rural areas being driven by other family members more often than men and men being driven by persons who are not family members more often than women. Local buses are used much more often by women than men in both areas. When focus is more on the area effect than gender differences, data indicate different job-related mobility patterns of women living in urban and rural areas.

**Table 20: Modal choice for commuting in rural and urban areas (multiple choice), in %**

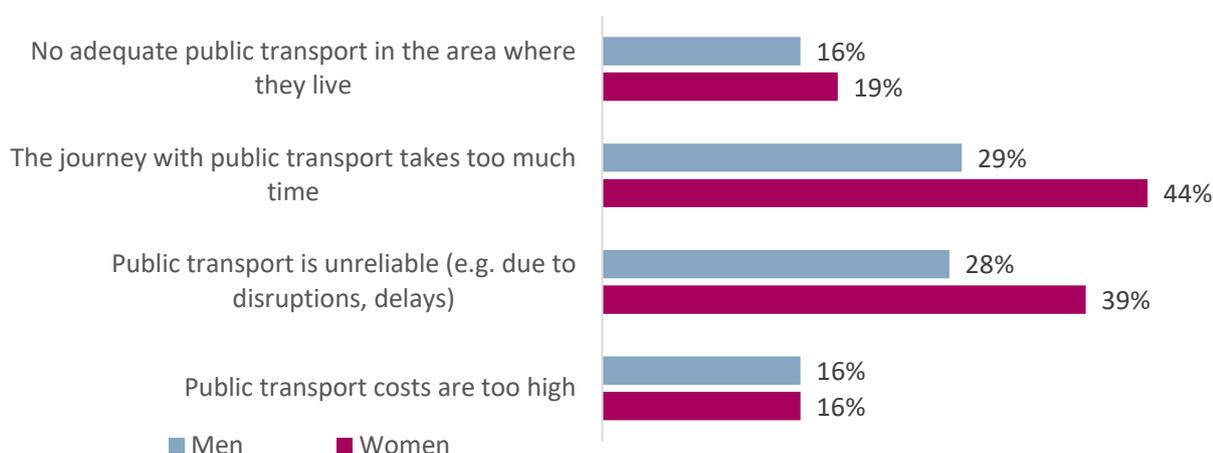
Modes of transport	Rural areas		Urban areas	
	Female	Male	Female	Male
Walking	46	37	63	56
Cycling	21*	18*	16	27
Car or motorcycle as a driver	45	77	33	64
Taxi	13*	10*	23	17
Car as passenger (driver is family member)	41	31	29	15
Car as passenger (driver is not a family member, e.g. a neighbor)	16	36	14	20
Local buses	35	17	41	30

Source: GETS survey, n=1,324 \* differences are not statistically significant.

**Employed women from rural areas are more dependent on other for transport than women from urban areas.** Due to the lack of public transport and lower access to private cars, women living in rural areas are more often than women in urban are driven by someone else. Women living in rural and urban areas are being driven by a family member (42% and 22% respectively) much more often than men (31% and 16% respectively).

**Respondents complain on the availability of public transport, bad transport connections and long commuting time.** There are significant differences regarding transport related obstacles for commuters living in rural and urban areas. Employed respondents from rural areas state that there is no adequate public transport available in the area where they live. FGDs findings indicate that this represents the main issue for them for accessing their workplace. Moreover, more than one quarter of the rural population (26%) compared to only 13% of the urban population indicates bad public transport connections as another major problem for commuting. Another obstacle is that the journey with public transport takes too much time which is a bigger problem for respondents from urban areas (39%) in comparison to the people from rural areas (31%). The same applies to the statement that public transport is not reliable enough due to its delays and disruptions (agreement of 28% of respondents from rural areas and of 36% of respondents from urban areas).

**Figure 19: Transport related difficulties per gender**



Source: GETS survey, n=1,324

**Not only do women use public transport more frequently, but they complain more on the length of trips and reliability of public transport.** Regarding the barriers of commuting using public transport, men and

women are of the same opinion regarding costs and availability of public transport, while much more women complain that the journey with public transport takes too much time and is unreliable (see Figure 19). One reason why women are more prone to express concerns about problems with public transport, is probably due to the fact that women significantly more often use public transport than men. Also, based on the data obtained through Focus Group Discussions (FGDs), women claim that they often combine different bus lines on commuting trips, so that a delay of one bus has an impact on the whole trip chain. Besides, a reduced number of buses during the summer period are also a nuisance for commuters.

**There are no transport-related difficulties in finding a job.** The research results show that there are no gender related differences regarding impact of transport issues on the process of finding a job – both men and women state that they do not have any transport-related problems to get employed. This applies to respondents from rural and urban areas and all educational backgrounds.

**Driving a car is the most desirable transport mode for both women and men when they travel to work.** This is particularly true of respondents from rural areas. Interestingly, both, men and women appreciate active modes (walking and cycling) for commuting to workplace. In fact, cycling and walking to the workplace are the more often chosen by respondents from urban areas (41% and 55% respectively) than in rural parts of the country (35% and 41% respectively). Being driven in a private or public vehicle to work is more popular among women than men.

**Table 21: Preferred modes of transport for commuting to workplace per gender, in %**

Which mode of transport would you like to use for commuting?	Women	Men
Car or motorcycle as a driver	59	76
Walking	53	48
Cycling	36	41
Car as passenger	35	26
Company organized transport	28	26
Taxi	27	17
Local buses	26	19

Source: GETS survey, n=1,324

**The most visible gap between actual and preferred modal choice for commuting can be observed for women who neither take a car nor cycle to work although they would like to.** Inadequate public transport options could be a reason that the majority of women in urban and in rural areas would like to use a car for commuting – in spite of the fact that only 35% of them have a driver's license at all.

### 3.3.2 Mobility patterns related to education

#### Key findings:

- The mobility patterns related to the education are gender and age specific. They depend if children are escorted by parents or going alone.
- Preschool children and children in lower grades of primary school who are escorted by parents, will copy gender specific mobility patterns of their parents. Children escorted by mother mainly walk, while children escorted by father mainly travel by car.
- Children in higher grades of primary school and secondary school show gender mobility differences, as boys mainly walk and girls mainly take buses to school, extracurricular and leisure activities.
- University students already show the same patterns as adults. Women mostly walk and use public transport while young men often drive cars.

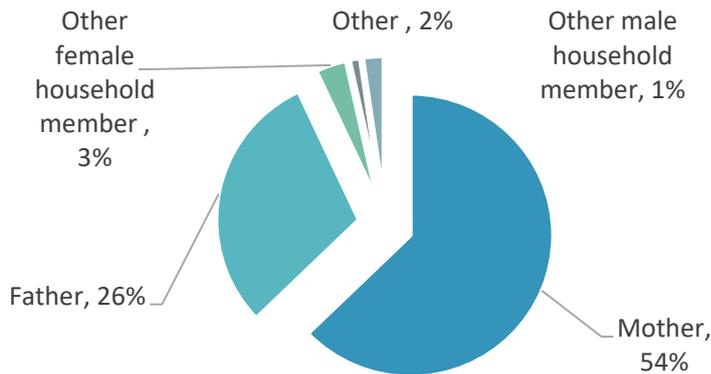
**Supporting children in education represents an important aspect of family care which is not equally assumed by male and female family members.** As shown by many studies and the Gender Equality Index Report (Babović, 2010; Blagojević, 2018; SIPRU, 2018) women take over larger share of responsibilities related to child-care and education. Different gender roles within the family combined with gender differences in mobility of parents influence various mobility patterns of girls and boys. Small children (pre-school and lower grades of primary school) are more often accompanied by their parents, so their mobility patterns are dependent on the parents' mobility patterns. When they grow up and start to go to school on their own, mobility patterns change as well, reflecting the opportunities and inclinations of the local mobility cultures that are influenced by norms or prevailing perceptions of what is safer or better for boys and girls.<sup>11</sup> International studies have also addressed the issue that transport systems are affected by the gendered and cultural norms of society in length (for example see; Levy, 2013; Rosenbloom, 2010; Loukaitou-Siders, 2016).

**Preschool children are accompanied by adults, more often mothers than fathers.** In majority of households, pre-school children are accompanied to school or kindergarten by adults. In the majority of cases, the mother is the person who accompanies children to the pre-school (see Figure 20).

**Mobility patterns of pre-school children are gender sensitive.** The mode of transport used for escorting a child to pre-school depends strongly on the person who is taking him or her to the school. While mothers predominantly walk their children to pre-school facilities, fathers take the car. Mothers also rely on public transport more often than fathers (see Figure 21).

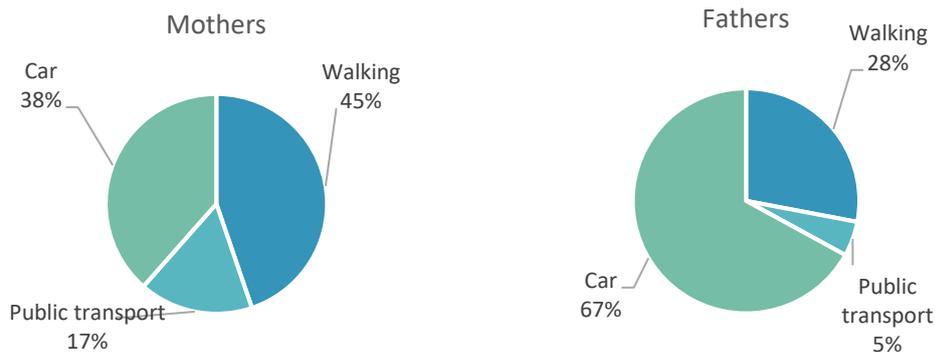
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<sup>11</sup>Since only adults have participated in the GETS survey, any information on the mobility behavior of children has been reported by other household members. Thus, the size of the sub-samples of different age groups of children was not large enough to enable detailed analysis and explore various factors that might influence mobility patterns (i.e. the economic situation or education of parents). Nonetheless, the survey results still provide basic findings on mobility patterns of children and young people in Serbia, which will be presented in the following section.

**Figure 20: Household members accompanying children to pre-school**

Source: GETS survey, n=153

**With respect to escorting pre-school children to leisure time activities, tasks are more equally divided between mothers and fathers.** Among the small sample of pre-school children attending leisure time activities (n=64), 38% are accompanied by their mother, 31% by their father, in 19% of cases this responsibility is equally shared between male and female members of the household, while 8% of the pre-school children walk on their own. Due to the small sub-sample, it is not statistically valid to disaggregate the data per mode of transport. Though, the tendency seems to be similar as for school trips with mothers walking and fathers driving their children to leisure time activities. Finally, **inadequate transport options do not seem to be an issue for attending extracurricular time activities or not, while lack of interest and expensive fees were mentioned as reason for not attending any activities.**

**Figure 21: Mode of transport for accompanying children to pre-school**

Source: GETS survey, n = 123

**Primary school children also reflect mobility patterns of their parents which are gender specific.** Although majority of children of this age go to school alone, 39% of children are still accompanied by adults, and more often by a mother than a father (17% vs. 10%). If accompanied by a mother, children will walk in 51% of cases, be transported by car in 41% of cases and by public transport in 5% of cases. If accompanied by a father, children will go to school by car in 73% of cases, will walk in 18% of cases and by bicycle in 9% of cases, but will not use the public transport. Again, there are no significant differences in using different types of transport depending on the location of school and type of settlement. The only significant difference is related to whom accompanies children to school.

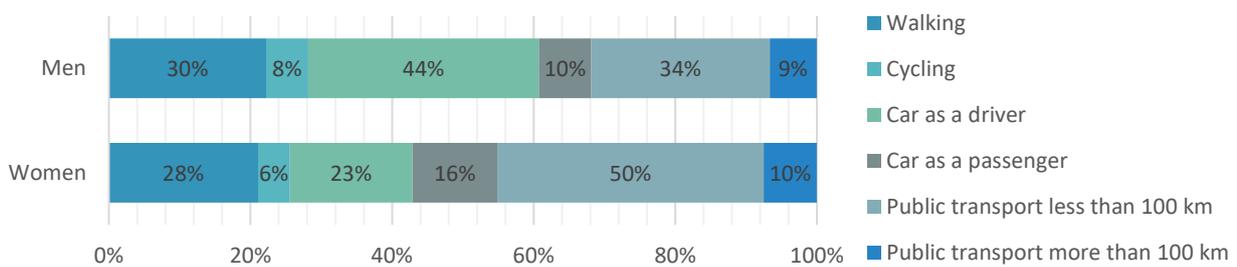
**Children who go to school alone most often walk.** A total of 69% of the girls and 72% of the boys walk and then use public transport (28% of girls and 26% of boys) with no significant gender differences.

**Gendered patterns are obvious in case of traveling to extracurricular activities.** When going alone, boys prefer walking (83% of those going alone), while girls equally chose walking (52%) and public transport (48%). The survey itself gives no ground for the conclusion as to why these differences occur. However, it could be assumed that the use of public transport is related to concerns regarding the safety of girls. Walking, particularly in the evening hours when many of these activities take place, could be considered as riskier.

**With the transition to secondary and particularly university education, gendered mobility patterns start to take form of general picture among adults.** Majority of girls going to secondary school walks to the school (52%) while the rest use public transport (48%). Among boys who attend secondary school majority uses public transport (69%) while the rest walks (31%).

**University students already show the same patterns as adults.** At this stage stable patterns that resemble those of the older appear. Men tend to use car more often and women tend to use public transport more often than men. (see Figure 22).

**Figure 22: Mobility patterns related to the university education per gender in %**



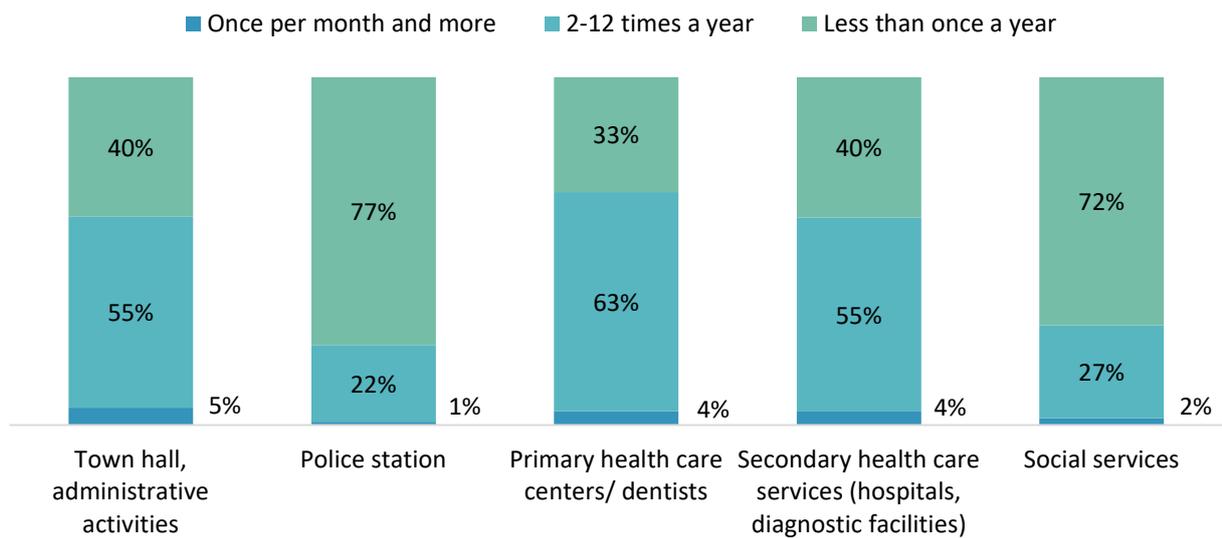
Source: GETS survey, n = 580

### 3.3.3 Mobility patterns related to the access to public and social services

#### Key findings:

- Women visit more often primary and secondary health care centers, while men visit more often the town hall and the police station. This is influenced by the division of responsibilities (i.e. women taking care of children's health and men completing car registration or similar), but it is also influenced by settlement type, economic status, level of education and other.
- In accessing public and social services, men and women reproduce general mobility patterns. Women are mainly walking, being driven by others or using public transport and men are mainly driving a car.
- Due to limited mobility options, women restrain from the use of services more often than men.

Public and social facilities are less frequently used than workplaces or schools. Most of these facilities are visited only several times a year. **The most frequently used services are administrative, primary (e.g. family physicians, dentists) and secondary health facilities (e.g. hospitals)**, while about three quarters of the GETS survey respondents visit police offices and social services less than once a year (see Figure 23).

**Figure 23: Frequency of visiting social services**

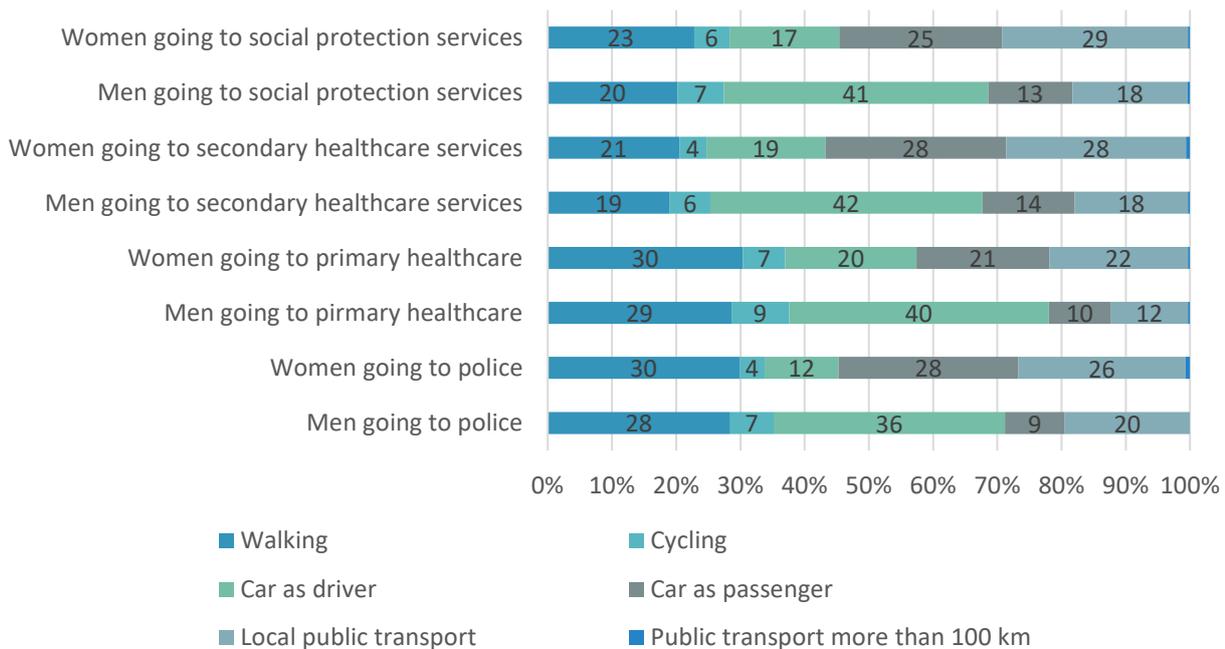
Source: GETS survey, n = 2,400

**While there are noticeable gender differences in access and use of health care services, there are no significant gender differences in use of public administration and social protection services.** Women visit primary health-care centers more frequently than man, which is partly linked to their main child-caring role. This is confirmed by the finding that primary health facilities are more frequently visited by respondents with children in school age (73%) than by those without children (61%).

**There are no significant gender differences in terms of visiting town hall and performing administrative activities.** With regards to visits to town hall, the findings indicate that respondents with higher education perform administrative activities more frequently than those with lower education (62% of respondents with a higher education perform these activities several times a year while compared to 39% of those with complete or incomplete primary education). The data also indicates that respondents with under-aged children (68%) visit these facilities more often, as compared to those who do not have young children (52%).

**No gender differences were recorded with regards to visits to social protection services, too.** However, the data show that, of all respondents, social protection services are most frequently used by women from rural areas, since third (33%) of them visit social services several times a year. This is related to higher rates of at-risk-of-poverty recorded in rural areas, higher shares of single and elderly households who are in a need of support from social protection services (RZS, 2018).

**Men and women use different transport modes to reach services.** As a rule, and reflecting general gendered mobility patterns, men more often than women go to public and social services driving a car, while women more often walk and use others to drive them or use local public transport (see Figure 24).

**Figure 24: Transport modes to public and social services by gender, in %**

GETS user survey, N=2,400

**Because of limited mobility options, women in Serbia tend to restrain the use of services more often than men.** Men restrain from administrative activities to a greater extent (21%) than women (15%). With the exception of administrative activities, more female than male respondents have claimed that they have restrained activities due to an inadequate accessibility of transport options. In case of health or social services, this was the case with 13% of women and 7% of men. Respondents with low self-perceived socio-economic status as very low and lowest level of education (incomplete or complete primary education), restrain health care and social services more often.

**Underdeveloped public transport creates obstacles for various social services.** As revealed in the qualitative survey, social services (in this case, active labor market measures) often fail to cover target groups, such as rural women, due to their inability to travel. This has been recorded in Kruševac and attributed to the lack of adequate public transport.

### 3.3.4 Mobility patterns related to the access to leisure and shopping

#### Key findings:

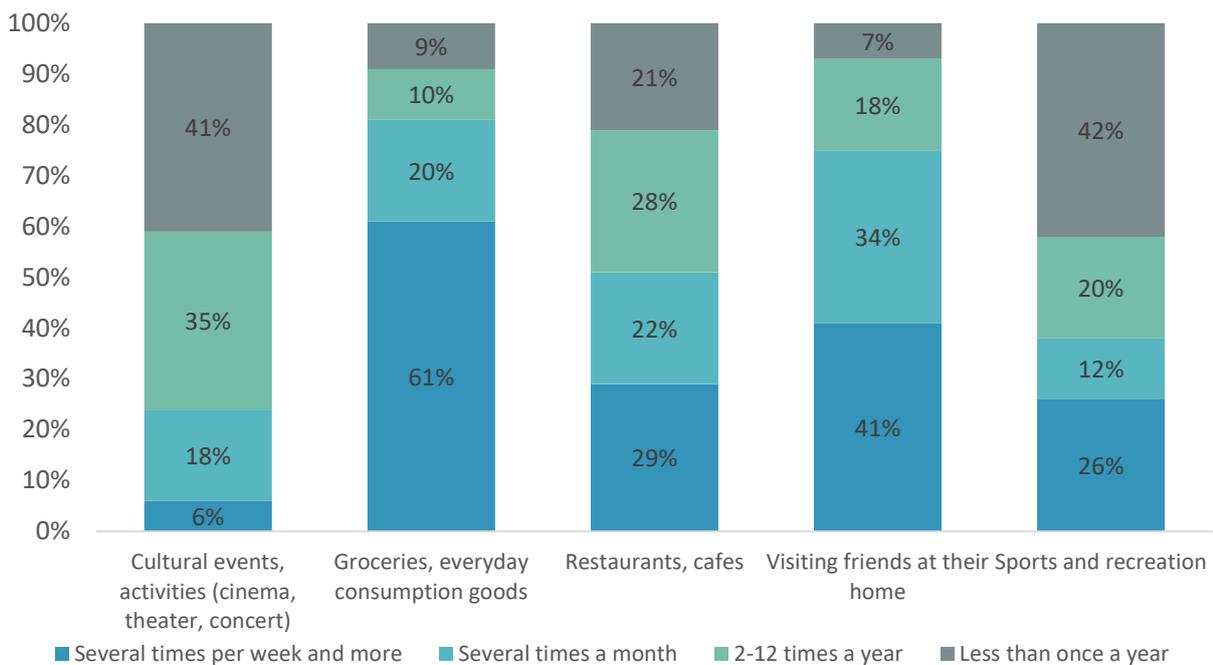
- Women visit more places for shopping and cultural events, while men perform social activities such as going to restaurants and cafes, visiting friends and recreation.
- Besides gender, there are other factors influencing the frequency of use of services, such as settlement type, socioeconomic status, level of education and gender specific responsibilities (for example, taking care of children).
- Significantly more women in comparison to men renounce using different services and pursuing social activities due to unavailability of modes of transport.

**In comparison to social and public services, leisure time facilities are much more frequently used.** At the top of the list are visits to groceries and friends: 81% of the respondents go to groceries and three quarters visit friends at least several times a month, while cultural events, restaurants and sports facilities are less frequently visited (see Figure 25).

**The place of living significantly influences the frequency of attending cultural, recreational and social events** since 40 % of women from urban areas attend cultural events several times a year while the according proportion of women from rural areas is significantly lower (29%). In addition, 40% of the men from urban areas attend cultural events several times a year which is significantly more frequent than for men from rural areas (27%). When it comes to the socioeconomic status, the respondents who rate their socioeconomic status as low attend cultural activities the least frequently – more than a half of these respondents (53%) attend these activities less than once a year.

**Rural families face additional obstacles and feel discriminated.** Qualitative research indicates that the fuel the biggest segment of the household budget. Another expense to be added is the registration fee which is perceived as too high. These expenses limit the movement of their families. They often organize themselves and alternatively drive their children to different events. However, sometimes they drop out because of high costs. They also feel discriminated since some activities are free for children and students, but not for those living in rural areas, since they cannot attend them due to high transport costs.

**Figure 25: Frequency of social and leisure time activities**



Source: GETS survey, n = 2,400

**Women go grocery shopping more often than men.** Everyday shopping is performed several times per week more often by women (67%) than men (55%). The difference is higher for respondents aged between 30 and 45 years (71% of the women and the 53% of men of the same age group) and decreases in the age group 65+ (62% compared to 57%).

**Young women frequently go shopping clothes and cosmetics.** In the age group 18 to 29, 32% of them go shopping for clothes or cosmetics several times a week as compared to only 8% of men of the same ages. The frequency of going shopping for clothes or cosmetics decreases with the age but increases with socioeconomic status. There are differences between urban and rural women: 23% of the women from urban areas go shopping for clothes or cosmetics several times a week as compared to 15% of women from rural areas.

**Younger respondents visit cafes and restaurants more frequently than older.** Over half (56%) of the younger (18 to 29 years) respondents visit restaurants and cafes several times a week as compared to 22% of middle-

aged respondents (46 to 64 years). There is a small gender difference as more young men report to visit cafes and restaurants several times a week (60%) than women (52%). Gender differences are most noticeable among respondents from rural areas since 29% of men from rural areas visit restaurants and cafes several times a week, as compared to only 1% of the rural women. This reflects gender patterns of lifestyles, with women having less free time due to the bigger responsibility for household and family - on average they spend 4.1 hours daily in household activities (SORS, Time Use Survey 2015). Another factor are norms and values governing the time use of men and women, which is in rural areas more aligned with patriarchal cultures, defining the leisure time activities differently for men and women. While women in rural areas spend more free time with family, neighbors, watching TV, men visit public entertainment and recreational facilities (particularly restaurants) (Babović, Vuković, 2008).

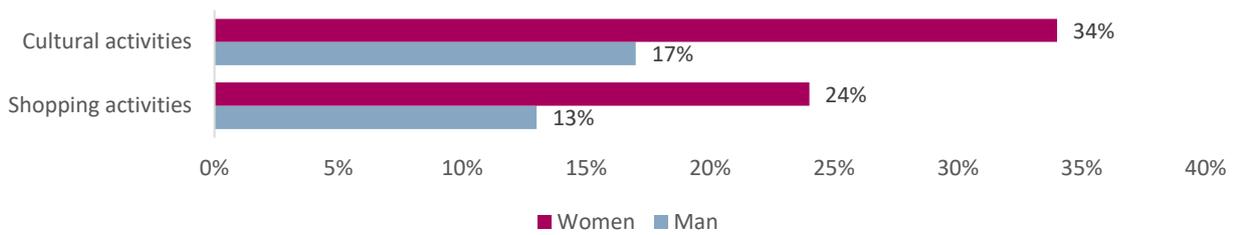
**Men of all ages visit friends more often than women.** However, the frequency of visiting friends decreases with the respondents' age and is most common among younger respondents. It is also evident that respondents from rural areas visit friends more frequently than respondents from urban areas. It may be assumed that the difference in lifestyle in rural and urban areas affects the intensity and frequency of social contacts, including socializing with friends. Variety of cultural, recreational and socializing facilities is much lower if at all available in rural areas (Cvejić, et al., 2009). It is also possible that the pace of life in urban settlements leaves less free time for socializing with friends than in rural settlements where people are more reliant on one another. An interesting finding is that visiting friends is significantly more frequent for women who perceive the socioeconomic status of their household as low (41%), as compared to men of the same socio-economic status (30%).

**Men also pursue sports and recreation more frequently than women.** The gender gap can be illustrated with the data for the age group 18 to 29 years: 54% of men and only 37% of women engage in sports activities several times a week. Moreover, the rural population is much more inactive as compared to the urban population.

**Men use cars for social activities more often than women.** In case of almost all social activities, more than a half of male respondents use a car as the primary means of transport while women use public transport or a car as passengers. Men are more inclined than women to use a car even for distances less than half a kilometer. When visiting friends less than 500 meters away, as many as 38% of men drive a car as compared to 14% of women.

**Younger respondents often walk, while older rely on public transport.** The respondents' age has a significant impact on the choice of mode of transport when using various services or taking part in social activities. The youngest respondents (aged 18-29) mainly walk to access services. The majority of oldest respondents (aged 65 and older) use public transport as the basic mode of transport for reaching different services.

**As a consequence of limited mobility options, women in Serbia tend to restrain from social activities more often than men.** This is particularly visible in relation to cultural activities (Figure 26). Gender differences are particularly prominent for cultural activities (17%) and shopping (9%). For example, as much as 65% of the women aged between 46 and 64 have restrained cultural activities due to inadequate transport networks as compared to 47% of men.

**Figure 26: Restraining activities due to inadequate transport networks**

GETS user survey, N=2,400

**Different socio-economic and demographic group employ various coping strategies to compensate for activities and services they are not able to pursue and use due to inadequate transport.** In this context, respondents in the younger age category are the main users of commercial delivery services (32%), while elderly respondents (65 and older) rather ask private people for deliveries (61%). As the socioeconomic status improves, so does the percentage of respondents who find alternative activities to compensate for those they have renounced.

## 4. TRANSPORT SECTOR AS EMPLOYER: GENDER ASPECTS OF EMPLOYMENT AND LABOUR FORCE

### 4.1 GENDER SPECIFIC CHARACTERISTICS OF EMPLOYMENT IN TRANSPORT SECTOR

#### Key findings:

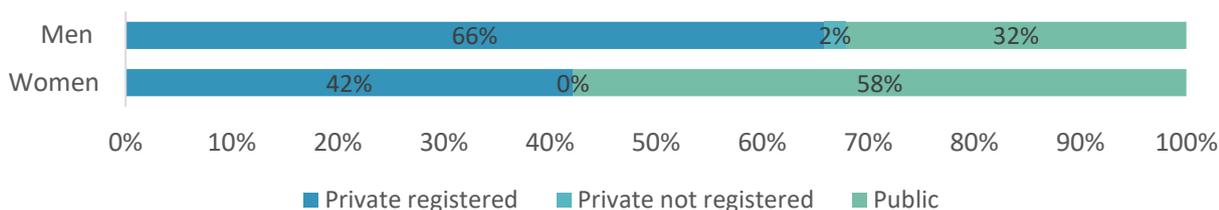
- Transport sector employs predominantly men who make 80% of all employees in the sector.
- There is clear gender segregation by occupation since women employed in transport sector are mainly employed in administrative and professional occupations, while men are dominantly workers and drivers.
- Majority of women employed in transport sector work in state-owned transport companies, while majority of men employed in transport sector works in private companies.
- Women employed in transport sector are much less found among entrepreneurs in transport although both men and women employed in the sector are mainly employed as salaried workers.
- Informal employment and lack of social rights based on employment (retirement and disability insurance, health care insurance) are present below average for the overall labor market and categories mainly exposed to this precarious work arrangements are drivers and workers.
- When net salary for all employees is taken into account, women are on average less paid than men, but if gross salaries from only formal employment are taken into account, than women are on average better paid than men.

The analysis of the characteristics of the workforce in the transport sector in Serbia presented in this section is conducted based on the Labor Force Survey (LFS) data for 2018 of the Statistical Office of Serbia, as well as on statistics on earnings collected.

**Transport sector in Serbia predominantly employs men (80% of all employees in the sector).** The share of employees in the transport sector in total number of employees is 7% among men and 2% among women. Out of all persons employed in the transport sector, 80% of them are men and only 20% are women. These numbers indicate a general underrepresentation of women in this industry. This also corresponds to the situation in EU-28 since among employees in transport sector 78% are men and 22% are women (Eurostat/ Labor Force Survey 2018). Employment in transport sector makes 8% of total employment of men and 3% of total employment of women in EU-28, which is very similar to the situation in Serbia.

**Although majority of men and women are employed as salaried workers, there are significant gender differences as among employed men higher share record entrepreneurs and self-employed than among women.** The most frequent status in the transport sector is the salaried worker - 85% (the share of salaried workers in all sectors is 72%). Women in the transport sector are more likely to be in this status compared to men (96% vs. 82% respectively). Men are more likely to be entrepreneurs or partners in enterprises – 14% compared to 2% among women. There is almost twice as many entrepreneurs in the transport sector, compared to the situation in all sectors in total (12% vs. 6%). Probably this is the effect of large number of taxi drivers who are registered as entrepreneurs and are almost fully men.

**Figure 27: Employees in the transport sector per ownership status of the companies and gender**



Source: SORS, LFS, 2018

**Men dominate in private transport companies, while women outnumber men in public transport companies.** The majority of employees in the transport sector are employed in private companies (61%). However, there are major gender differences – men are more likely to be employed in private companies (66% of men employed in transport sector works in private companies while at the same time 42% of women employed in this sector works in private companies (see Figure 27).

**There is a pronounced gender segregation according to occupations in the transport sector.** Women employed in this sector are most often employed as administrative staff or as professionals, while men are most frequently employed as drivers and other workers. However, participation of women among executives and professionals is far lower than men - 72% of the total number of managers and 66% of the total number of engineers and technicians in this sector are men (Table 22).

**Women employed in the transport sector are, on average, more educated than men.** The reason is that they are more concentrated in the occupations that require a higher level of education, such as various professional positions or administration. For instance, while 58% of men employed in the transport sector are machine and plants operators, assemblers and drivers, 50% of women employed in this sector are administrative officials. In addition, while 18% of women employed in the transport sector are engineers, professional associates or technicians, 9% of all men employed in this sector belong to this occupation category (see Table 22). However, data from the LFS shows that 2% of the women and 8% of the men have a very basic education with uncompleted or completed elementary school, 53% of women have completed secondary education, compared to 76% of men, while 45% of women are highly educated compared to 16% of men.

**Table 22: Structure of employees in the transport sector by occupation and gender, in % in 2018**

Occupation	The share of men and women in each occupation			Structure of employed women and men by occupation		
	Men	Women	Total	Men	Women	Total
Managers	72	28	100	4	6	4
Professional experts and artists	46	54	100	2	9	4
Engineers, professional associates and technicians	66	34	100	9	18	11
Administrative officials	54	46	100	15	50	22
Service and trade assistants	65	36	100	4	8	5
Craftsmen and related occupations	98	3	100	5	1	4
Machine and plants operators, assemblers and drivers	99	2	100	58	3	47
Basic/simple occupations	78	22	100	4	5	4
Total				100	100	100

Source: SORS 2019c

**Most employees in the transport sector work on the basis of a formal contract.** Their share in transport sector is 96%, which is more compared to employees in all other sectors (93%). Women employed in the transport sector work on the basis of a formal contract to a slightly higher percentage - 99%, while there are 96% men formally under contract. The informal employment is present in male-dominated positions, such as machine operators and drivers. In addition, male employees get less frequently unlimited working contracts (79% in comparison to 82% of women). Whereas 19% of the male workforce in transport is hired on a fixed-term contract in comparison to only 16% of the female workers. Besides that, about 1% of employees in the transport sector works only occasionally or seasonally.

**Employees in the transport sector have high level of social rights protection.** Considering working conditions and benefits (such as pension, disability insurance, health care insurance, paid sick leave, paid holidays), employees in the transport sector are in a slightly superior position than employees from other sectors. Most employees are entitled to pension insurance (95% in the transport sector, in comparison with 76% of employees from all other sectors). Men employed in this sector are more often denied a pension insurance

than women (94% of men have a right to pension insurance, in comparison to 97% women). Drivers and plant operators are particularly affected and often not permitted to be included in a pension insurance by their employer.

**They work longer working hours than the average in the Serbian economy, and this applies to men more than to women.** Employees in the transport sector have an average of 41 hours per week compared to economy average of 35 hours. The gender distribution of working hours is to the detriment of men employed in the transport sector who work more hours during the week (42 hours on average), in comparison with women (36 hours on average). About 40% of employees in the transport sector work day and night shifts, which is much more than in other sectors, where 18% of employees work at night. Apart from that, men employed in the transport sector more often work night shifts (46%) than women (16%). In the transport sector employees often work on Saturdays (73%) and Sundays (50%). There are huge gender differences when observing work during the weekend - men more often work on weekends (79% on Saturdays and 55% on Sundays) than it is the case with women (48% on Saturdays and 27% on Sundays).

**There is a gender pay gap in the transport sector – in overall women are less paid, but formally employed women are in a better position than men.** According to the 2018 LFS data that include formal and informal employment, the average *net* salary of employees in the transport sector was 39.900 dinars, while the national average *net* salary was 37.290 dinars. Men on average earn 40.280 dinars, while women earn less – 38.800 dinars. Nevertheless, according to the data on earnings collected by the Statistical Office of the Republic of Serbia, which includes data exclusively on formally employed workers and their *gross* salaries – women have higher earnings than men. The average *gross* salary of men was 55.803 dinars, while for the women was 59.860 dinars. This discrepancy reflects the differences in the structure of employees by professions, since women obtained higher qualifications, therefore their positions are more often regulated by formal working contracts.

## 4.2 CASE STUDIES OF PUBLIC TRANSPORT COMPANIES

**Gender assessments of four selected companies/organizations in the transport sector were conducted to provide insights into gender specific aspects of the employment and service provision.** The methodology was based on gender audit developed by the International Labor Organization (ILO) and it was combined with case-study methods in order to provide a comprehensive and objective picture on the situation through triangulation of data. Four transport service providers were selected as units of the analysis: *Srbija Voz* as a state-owned railway company, *Taxi Chamber of Commerce*, *Public Utility Company – Belgrade City Transport*, and *Lasta*, as a company providing inter-cities transport services. Main findings will be summarized here for each of them, while detailed analysis is presented in the MS3 Report.

### *Srbija Voz*

***Srbija Voz* employs a predominantly male labor force.** There are only 26% women among employees. Women are represented at management position proportionally to their participation among employees (28%). Gender segregation is present in the occupational structure with women concentrating in administrative and men in workers occupations, such as drivers. There are currently no policy incentives for increasing the number of female work force in the sectors traditionally employing majority of male work force. Based on the information provided by *Srbija Voz* there is no gender pay gap among men and women employed at the same positions and same jobs.

**Gender mainstreaming is not implemented fully in the key company policies and regulations.** Activities related to gender equality are presently performed by Commissioner for Ethics. A Code of Ethics has been drafted to deal with gender issues. The Code of Equal Opportunities is under draft. The company has implemented the survey on the position of women in the company. There is a lack of comprehensive gender

disaggregated data. There are no specific measures regarding the reconciliation of work and family. There are no separate facilities, such as toilets, locker rooms and showers for female and male employees either.

**Monitoring of service provision is gender blind.** Customer satisfaction survey is regularly implemented by the company, but results of this survey are not disaggregated by gender.

### *Taxi Chamber of Commerce of Serbia*

**There is a gender disbalance in employment and work process in taxi service** with only 0.4% of women among active taxi drivers in Belgrade. Important motives to work as taxi drivers for women are independence, autonomy, flexible working hours. The issue of safety is one of the main challenges: there are no safety tools such as cameras and panic buttons. Women are more likely to feel unsafe during working night shifts. As a consequence, they are less likely to work during night shift when earnings are higher due. Female, but also male taxi drivers reported experiences of sexual harassment. The issue of the lack of portable toilets is a particular difficulty for women doing this job.

**Organizational gender mainstreaming is missing.** Internal evidences are not gender sensitive, and there is a lack of gender disaggregated data. Gender equality is not mainstreamed in the Statute of the organization. Rights and obligations of members regulated by the Code of Conduct of the Taxi Association which is not gender mainstreamed.

**There are significant gender gaps at the level of service provision as well.** Neither the Taxi Chamber, nor Taxi Associations keep records about the number of complaints by gender of customers. Perception is that female taxi customers feel less safe than men. Taxi vehicles are not equipped with child seats which undermines the safety of children and becomes particular concern of women who are most frequently main carer of little children. Taxi vehicles are not adapted for people with disabilities, and the law does not require them to provide this at any rate which undermines the safety and comfort of both women and men with disabilities.

### *Belgrade City Public Transport Company - GSP*

**GSP has predominantly male workforce** with only 84 women employed as drivers (3% of the total number of drivers). Women record higher share among managers (31%) than in total work force of the company (11%). GSP faces continuous labor force shortage for drivers of D category due to the emigration. Only 1% of women in Serbia have a "D" category driving license

**Gender mainstreaming is implemented to a limited extent.** Lack of gender disaggregated data prevents the insights in pay gap, access to resources, career development and other aspects of employment. Training on communication with customers is delivered to drivers regularly. There is a person with a mandate to take care of workers' complaints, but it is not sufficiently promoted and it is not specialized for gender related issues and harassment. At the enterprise level, safety measures are applied for driver positions in most of the vehicles ("panic buttons", cameras, and the ability to lock the cab). These safety measures are of particular importance to women employed in driver positions.

**Systematic gender approach has not been part of the customer-focused or employees-focused policies.** Continuous monitoring the needs of customers who use public transport services are not performed. Consequently, neither basic nor gender aspects of transportation compliance with needs, quality and customer satisfaction are known. The company does not have an insight into the records about bus fares payments. Some of the company-owned vehicles have space reserved for pregnant women, as well as space for strollers.

### *Lasta transport company*

**Lasta employs predominantly male workforce.** Since 2014, after a reduction in the number of employees on a voluntary basis, the Department for Human Resources in the company was terminated. There is a Mediation person under the Law on Discrimination, who does not file a special report on complaints. In the top management (sector directors, sector managers and heads of business organizations) about a third of employees are women, 6 of them out of 19 employees. During last year, the company has employed almost nine times as many men as women. In the last two years, 37 women and 1 man have used maternity leave. The company has no developed practice of conducting surveys with employees on job satisfaction.

**Gender mainstreaming is missing in internal and external activities.** The company does not have a developed practice of conducting surveys with users of transportation services on satisfaction with the services provided. The company does not recognize the role and needs of their largest user group, women. There is no gender-sensitive record of the ticketing system. The equipment of certain company-owned vehicles is not satisfactory.

**Common challenges** come from the broader environment, from institutional structures, policy framework, social structures and culture underpinning gender inequalities in the transport sector.

#### **Challenges related to broader structural factors:**

- Women do not attend schools for occupations typical for the sector and already at that stage their chances to employ in the sector are reduced.
- In the absence of stronger gender equality organizational policies companies replicate general characteristics of gender segregation in the labor market, employing predominantly men, while minor female labor force is concentrated in the administrative or support service jobs.
- Various gender stereotypes prevent women from seeking employment in the transport sector: i.e. attitudes that women are not as good drivers as men or women cannot protect themselves.
- Lack of policies addressing the issue of segregation in education and the labor market, and measures stimulating education and employment of women in non-traditional areas and occupations.
- Lack of the implementation of the Gender Equality Law ("Official Gazette of RS" no. 104/2009), especially in the area of gender disaggregated data (Article 12).

#### **Intra-organizational challenges:**

- Except for Srbija Voz, transport companies generally lack an awareness of the need to address the issue of gender inequalities and to invest effort in systematically promoting gender equality.
- The safety of women is a common issue in jobs related to the provision of services to clients. The lack of safety instruments additionally prevents women from employment in such jobs.
- There is a lack of data disaggregated by gender that would enable thorough gender assessment.
- Companies are missing not only policies for gender equality but also mechanisms for protection against gender-based discrimination and violence.
- Data on career development and access to resources are very limited or absent, as are the means to objectively explore gender pay gaps.

Challenges related to gender sensitive service provision:

- There is neither knowledge nor the necessary instruments and procedures to regularly screen the adequacy of services regarding gender specific transport needs.
- Infrastructure is often poor and not in line with gender specific needs, but also not accessible to persons with disabilities.
- Often there is not even an awareness of the need to plan and design services in accordance with the gender specific needs of customers.

## 5. CONCLUSIONS

### *Gender aspects of mobility behavior in Serbia*

- There are prominent **gender differences in mobility patterns**. They are related to the use of MIT, public transport and intermodal mobility.
- Men in Serbia drive cars and motorcycles much more often than women. They also cycle more often than women. Overall, men are more flexible in choosing time and route of their trips as **men focus on individual transport options** (cars, motorcycles, cycling).
- Women use more often than men public transportation (local buses, trams, trolley-buses, taxis, and regional buses). They more often get a lift in a car than men. Hence, **the women are more dependent on public transport services and infrastructures and much less autonomous in the transport than men**.
- Serbian men and women make more trips per day in comparison to other countries (e.g. Germany). Serbian **women make more trips than men** both on weekdays and on weekends. **Women** are more often than men forced to **combine different modes of transport** on a single trip (intermodal mobility). This is more time-consuming and produces additional stress for planning daily activities due to fragmented, disrupted and unsynchronized schedules of transport lines.

### *Availability: More options for getting from A to B!*

- The highest gender gap is found in **private car ownership and use**. Women are less likely to own a driving license or a car. Consequently, female ratings of the availability of cars is much lower than the male ratings. There are significant structural differences with urban, well-off and households from developed region being in an advantageous position.
- There seems to be a **cultural pattern** behind gender differences in car ownership that is also found in other European countries. Gender gaps in availability of cars are even more prominent in rural areas and among poorer households.
- Gender differences are also observed in cycling, as women less often possess bicycles and less often cycle than men. The **cycling infrastructure is underdeveloped**, even in cities. Bike lanes are not connected and, in many places, there is a cyclist-hostile traffic culture.
- In Serbia, men walk nearly as often as women and the modal share of walking is similar. Ratings for **walkability** and injuries of pedestrians differ considerably between the cities, while **walking infrastructure** is often perceived as **inadequate** (derelict sidewalks, lack of sidewalks in less developed areas, sidewalks being occupied by parked cars etc.).
- **Availability of public transport is limited**. Public transport is characterized by outdated vehicles, disruptions, low coverage of certain areas with lines. Since women use public transport more than men, they are more affected. Gender gaps in mobility are higher in rural areas and less developed regions due to the lower availability of public transport.
- The **availability of taxis and shared mobility services** is limited. Taxi services are perceived as unavailable and are rarely used, though women tend to use them more than men. Shared mobility services are underdeveloped apart from bike rentals that are available in only several cities and are mostly developed for recreational and not commuting purposes.

### *Accessibility: More mobility with less traffic!*

- Women have lower access to cars and motorbikes due to the **low rate of driving license possession**. The rate of female license-holding is considerably lower in comparison to most EU countries. However, qualitative data suggest that even when they hold a driving license, women use cars less than men. Because of both lower availability due to the low ownership rates and a lower accessibility due to low driving license rates, women are **more dependent on public transport, on walking** or on family members

or other people **giving them a lift in a car**. Particularly in rural areas, they are less autonomous in transport and **more dependent on family and neighbors**.

- Car drivers face other obstacles, e.g. **the lack of parking space**. This makes personal cars far less accessible. Furthermore, female drivers face prejudices.
- **Accessibility of key POIs is not bad** mainly because the key educational, health care and other facilities are within reach of 3 km for majority of population.

### ***Affordability: Targeted subsidies for main public transport users!***

- **Public transport is generally perceived as affordable**, though low-income groups perceive public transport more often as expensive compared to other income groups.
- There is a significant **gap in resources** available to men and women due to lower employment rate among women and a gender pay gap.
- **Gender differences of monthly expenditures on transport increases with income level of the household**. In the lowest income households gender gap is negligible, while the biggest gender gap is observed in highest income households, with men spending on average much more than women. In households with higher socio-economic status, there is a higher share of men spending more on cars.
- The qualitative data reveals some **hidden costs**, particularly for people living in rural and suburban areas (e.g. platform tickets at large bus stations).

### ***Acceptance: Increasing the feeling of safety, security, flexibility and comfort in public transport***

- The most comfortable and attractive transport modes are **walking and using car** whether as passenger or driver for both, men and women.
- **MIT is the most attractive (in terms of flexibility and comfort) mode of transport for all users**. This means that women's more frequent use of public transport is not the consequence of preferences but of constraints of access to private cars.
- Contrary to the objective situation, which indicates the use of car as the most unsafe mode of transport, both women and men rate the car use whether as a driver or as a passenger as the safest mode of transport after walking. Women generally perceive safety risks higher in all modes of transport than men.
- Respondents are **not satisfied with public transport**. While for both, men and women, discomfort and unease in transport is related to the poor infrastructure, deficient vehicles, poor service, women indicate more often the reasons such as behavior of other people, which poses different kinds of threats to them (pickpocketing, harassing people, etc.). **Real-time information on delays and disruptions** is the most important aspect of attractiveness of public transport services, for both women and men, and regardless their activity, occupation, education, age or area of living.
- Women are exposed more to **sexual harassment and discrimination** in transport. This includes indecent touching, patting their body or hair, getting very close unnecessarily, comments from drunk passengers, etc. The qualitative research further reveals cases of discrimination, such as being thrown out of bus or being checked for a bus ticket more thoroughly than men. As a consequence, they feel uneasy in public transport more than men.

### ***Mobility patterns related to social inclusion***

- **Mobility patterns related to the employment are highly gender segregated**, with men driving to work much more often than women, and women mainly walking to work or using public transport.
- Women and men participating in the survey **did not point to the transport as factor preventing them to employ or to go to work**. However, women who rely more on public transport, particularly intramodality trips, and on others (taking lifts as passengers), are exposed to more difficulties and stress in getting to and from workplace.

- **The mobility patterns related to the education are gender and age specific.** They depend on whether children are escorted by parents or going alone. Preschool children and children in lower grades of primary school are more often escorted by mothers than by fathers. They will copy gender specific mobility patterns of their parents - if escorted by mother they will mainly walk, and if escorted by father they will mainly travel by car.
- Children in higher grades of primary school and in secondary school show gender mobility differences. Boys mainly walk and girls mainly take buses to school, extracurricular and leisure activities. This may reflect gender specific safety concerns, which are related to activities in evening hours. **University students** already show the same patterns as adults. Women mostly walk and use public transport while young men often drive cars
- There are significant gender differences regarding the use of different **public and social services**, which have to be taken into account when designing public transport routes. In accessing public and social services, men and women reproduce general mobility patterns. Women are mainly walking, being driven by others or **using public transport and men are mainly driving a car**. Due to limited mobility options, women **restrain from the use of health or social services more often than men**. This is not the case for administrative activities which are more often avoided by men than by women.
- Significantly **more women** in comparison to men **restrain using different cultural events, recreational services and pursuing social activities due to the more limited transport options**.

### *Gender specific characteristics of employment in transport sector*

- **Transport sector employs predominantly men** who make 80% of all employees in the sector. There is clear gender segregation by occupation since women in transport sector are mainly employed in administrative and professional occupations, while men are dominantly workers and drivers.
- Majority of women employed in transport sector work in **state-owned transport companies**, while majority of men employed in transport sector works in private companies.
- Both men and women employed in the sector are mainly employed as salaried workers. However, women employed in transport sector are rarely found among entrepreneurs in transport (since these are mainly male taxi drivers).
- Informal employment and lack of social rights based on employment (retirement and disability insurance, health care insurance) are present **below average** for the overall labor market and categories mainly exposed to this precarious work arrangements are drivers and workers.
- The gender assessment exercise but also the expert interviews reveal **a lack of gender data** but also of data on existing transport infrastructure that are necessary for gender analysis and for the efficient monitoring of the performance of gender equality in transport systems.

### *Cross cutting issues*

- Data on road quality e.g. on the share of “modern” paved and unpaved roads, as well as public transport data, e.g. on bus or train line lengths are available. In contrast, statistical and historical data on walking and cycling infrastructures such as bike parking facilities, pedestrian crossings or the quality of sidewalks are scarce, since only few municipalities stringently monitor infrastructures. Hence, qualitative data from interviews and FGDs should also be considered as further sources to describe the KPIs relating to infrastructures.
- The exact number of transport service providers and of taxi companies requires a regular monitoring, e.g. by commercial register institutions or by regular surveys.
- Consistent modal split surveys require intensive personal and financial resources. Modal split data is punctually investigated in the context of certain studies such as the SmartPlans for Belgrade and Kruševac rather than on a regular basis.

## 6. RECOMMENDATIONS

### *Gender aspects of mobility behavior in Serbia*

- **Designing, reforming, governance and management of transport system should be gender mainstreamed:**
  - **Governance and management** of the transport system in Serbia should be strongly gender mainstreamed. This requires establishment of inclusive and participatory governance structures, enabling women's participation in transport network planning and decision-making. This can be achieved by pursuing user-centered design approaches in general and with a special focus on women's needs as "non-car drivers", in particular, e.g. organizing workshops during planning processes.
  - All **policy interventions** related to gender differences should be carefully designed with proper gender impact assessment in order to contribute to the closing identified gender gaps.
  - **Systematically implement gender responsive budgeting** in the transport sector in order to support a user-centered design of transport infrastructure and transport service provision.
- **Policies and measures for redesigning transport should be guided by following principles in order to be gender equitable and to contribute to the overall gender equality:**
  - Awareness-raising measures and the promotion of gender-equal use and ownership of private cars should be integrated into policies that aim at more equal access to resources and responsibilities in the household and the family.
  - In order to improve the quality of life in cities and to protect the environment, public transport design should be aligned with gender-specific patterns and needs of women and men, to meet the needs of women who use public transport more often, and to attract as many men as possible to use public transport, instead of private cars.
- **Provide additional transportation options by encouraging active mobility** (walking and cycling) and shared mobility services (e-scooters, kick-scooters, bicycles and cars) - "shared mobility", which applies especially to women as a target group and to men who currently use cars more often.

### *Availability: More options for getting from A to B!*

- **Promotion of gender equality related to MIT:**
  - **Promoting more equal distribution of car ownership and use** (as drivers) should be promoted as part of more gender equitable access to resources in private households;
  - **Subsidize greater possession of driving licenses among women** should be promoted as part of gender equality and transport related strategies.
  - The interventions focused on regulations related to the cars in line **with environmental protection standards** (cleaner technologies, introduction of electrical cars) should be based on gender equality principles, taking care not to introduce new technologies primarily under the ownership and use of men while transferring outdated technologies to women.
  - **Raising awareness of traffic users** (motor vehicle drivers) regarding the safety of cyclists and pedestrians on the road. As part of the training for drivers, special emphasis should be placed on the safety of other traffic users (cyclists and pedestrians)
  - Promoting the **introduction of electric cars**
- **Improve cycling infrastructure and promote cycling:**
  - **Cycling infrastructure should be significantly improved**, particularly in cities, with introduction of cycling lanes, their better connection.
  - **Educate cyclists with regard to safe participation in traffic** and relevant legislative framework

- Driving bicycles should be **promoted among women and girls**, possibly already in early age, through sports classes in pre-schools and schools.
- **Shared bicycle services** should be introduced, including electrical bicycles which are more suitable for cities with hilly landscape.
- **More bicycle parking places** should be added in the city's hotspots, around schools, universities, business areas, etc.
- **Support cycling initiatives/ NGOs.**
- **Support active modes:**
  - **Raise awareness of active modes** (cycling, walking), e.g. advocacy campaigns explaining economic, ecological and health advantages of active modes.
  - Channel **targeted investments in walking infrastructure**: sidewalks, lightning, remove parked vehicles etc.
  - **Support walking initiatives/ NGOs.**
- **Improve the quality of public transport** services which will impact particularly mobility of women, but might attract also more men to use public transport instead of personal cars, which is beneficial for quality of city life and environmental protection. This could be done through:
  - **Re-considering / restructuring bus route networks** in order to reduce congestions and travel time in general and to adapt them to female users' needs in particular.
  - Ensuring **adequate frequency** of different means of public transport;
  - **Improved public transport management** and coordination which should result in reducing delays, better synchronization of lines, which particularly impacts women who use more intermodal transport options;
  - Provide efficient **information services** for intermodal travelers (apps with real-time routing, pedestrian navigation etc.)
- **Promote shared mobility:**
  - Stimulate **entrepreneurship in shared mobility services** and introduce more transport services that are based on sharing principles (such as scooters, bikes, cars) which are not costly, particularly in big cities.
  - Analyze demand and consider cooperation with **shared mobility service providers.**
  - **Promote use of shared mobility services** among both, men and women. Increase the number, especially of women, who have a driving license, then of women who ride a bicycle, scooter, etc. Increase their motivation to use the "shared mobility services", as this will increase their autonomy in mobility and participation in economic and social life

### ***Accessibility: More mobility with less traffic!***

- **Further investigate and address access to MIT:**
  - **Continually monitor and analyze the accessibility of individual motorized vehicles** to the female population, through systematic collection and gender-disaggregated data on driving licenses, car ownership and access to cars.
  - **Continue to examine the reasons for the lower level of driving licenses for cars and motorcycles in the case of women** in order to devise appropriate measures to increase the level of driving licenses for women. Are the reasons too expensive costs of driving schools, cultural norms that assign to women less motivation or self-confidence to learn driving, or the effect of lower economic resources and car ownership? Each of these factors should be targeted by appropriate measures, having in mind that goal is not to have more cars in the traffic but more gender equitable distribution of this transport mode. Particular attention should be paid to rural women. The total number of cars and their contribution to the congestion and pollution could be controlled with other measures.

- **Systematic planning of parking places:**
  - **Provide adequate number of parking places** near kindergartens, schools, markets and similar. This will make it easier for women to access these facilities, since they most often do family activities that require them to go to these places. But not only that, it can encourage men to become more involved in these activities (with the most frequent use of the car when going to these facilities / institutions).
  - Planning for parking spaces should be conducted to **free up pedestrian zones and increase pedestrian opportunities**.
  - **Promote walking and cycling to POIs**, such as kindergartens, schools, recreational, cultural centres **and develop required infrastructure**.

### *Affordability: Targeted subsidies for main public transport users!*

- Introduce **daily tickets**, in all cities in Serbia, where there is currently no such option.
- **Introduce changes to the ticketing system** (especially tariffing) that would take into account groups of users who regularly use public transport.
- The **restructuring of tariffs** could be supported by collaboration with local employers (e.g. on the job tickets) in order to reduce costs for women who are dependent on public transport for commuting.
- Expand **special tariffs** by including discounts and preferential tariffs for e.g. for parents with young children.

### *Acceptance: Increasing the feeling of safety, security, flexibility and comfort in public transport*

- **Promote safe modes:**
  - Inform citizens **about safety risks** related to different transport modes.
  - **Increase awareness of higher safety of public transport than cars** promoting more use of public transport within and between the cities/rural areas.
- **Improve safety in public transport:**
  - **Improving safety and security regulations** for bus, taxi, and minibus drivers as well as for conductors, e.g. by introducing driver or conductor photo IDs or driver security background checks.
  - Introduce a **gender-sensitive code of conduct** for taxi drivers that would be developed in a participatory manner, with the participation of women and women's organizations
- **Improve acceptance of public transport, as a reliable mean of transportation:**
  - Apart from long-term strategies for increasing the reliability of public transport in general, **information channels, like smartphone apps**, or real-time traffic signs can help to increase acceptance of public transport
  - Adjust public transport vehicles to be well suited for transportation of **mothers with children strollers** and **people with disabilities**.
  - Investing in **cleanliness** of vehicles and stations, reporting systems (feedback on cleanliness, trash etc.), regular controls.
  - Providing **better environment around bus stops** (proper lights, seats, rain protection) will increase acceptance of public transport.
  - Continuous **surveys of transport users and gender sensitive analysis** of the results on which recommendations for improvement would be based.
  - **Setting up a display** at most bus stops **with information on public transit arrivals, and developing an application with information on timetables**, arrival times and routes. This information is especially important for women because they use public transportation more and take care of children and other family members more often, and time planning is disabled due to lack of this information.

- **Provide feedback services** with regular customer satisfaction surveys and further grievance mechanisms. The gender-disaggregated survey data from these feedback systems should be regularly published in reports and online media.
- **Combat gender-based violence in transport**
  - **Ensure gender-sensitive planning on safety and security measures** at stations, transfers and in vehicles (e.g. cameras, lighting, emergency buttons). This includes planning transport infrastructure from a gender perspective (e.g. equipping local hotspots for certain groups with safety measures, longer traffic light phases at crossing).
  - Increase **public awareness** and carry out advocacy campaigns aimed to combat gender stereotypes and discrimination in general and particularly against women from multi-discriminated groups (e.g. against the Roma women) and in the context of transport.
  - Promote **zero tolerance** to gender-based violence with focus on public space and transport sector.
  - Introduce an **efficient harassment reporting system** including the development and implementation of a set of standard operation procedures (SOPs) for handling sexual harassment incidents and accountability rules (e.g. on respecting the complainant's confidentiality).
  - Promote the use of the existing public feedback channels and to inform the public on them

### ***Mobility patterns related to social inclusion***

- Previous recommendations contribute to the better availability, accessibility, affordability and acceptance of transport services which is a precondition for improved social inclusion. All of the recommendations reflect and influence the gender equality. However, there are some possible specific interventions tailored with particular purpose to increase social inclusion through better access to some resources and services.
- **Re-planning public transport routes and schedules** according to the user's requirements and destinations, particularly:
  - Public transport lines around kindergartens, schools, health facilities, municipalities, police stations, universities.
  - Introduce school-bus lines for children in less densely populated areas.
  - Planning parking places around shopping centres, green markets.
  - Organizing special transport services, such as 'health buses', or lines that are available during special hours for population coming to cultural or recreational events from distant neighbourhoods or settlements (i.e. evening buses scheduled for visits to cinema, theatres, restaurants during weekends between rural and urban areas).
  - Improving and promoting e-governance so people have less need to travel to the municipality or police for documents, licenses and similar.

### ***Gender specific characteristics of employment in transport sector***

- Education and gender equality policies should design measures that **decrease and ideally eliminate gender segregation in education**, including schools relevant for occupations in transport system. This could include:
  - This could include promotion of non-traditional occupations among boys and girls;
  - Organize information sessions for girls and introduce them to working conditions in transport companies;
  - Promotion of occupations in transport sector; and
  - Visits of schools to transport sector companies.
- Employment and gender equality policies should design and effectively implement measures for **elimination of gender segregation in employment**, including:

- Stimulation and even possible positive discrimination in employment of women in male occupations, such as drivers.
  - Taking into account the needs of transport sector and shortage in labour supply when designing active labour market measures, and motivating women to retrain for these occupations, such as D category drivers.
  - Introduce liaising with universities and technical and vocational training schools to coordinate recruitment efforts.
  - Introduce ‘Open Days’ where potential candidates (especially women and young people) would be invited to visit the workplace and talk to staff which could contribute to challenge or demystify careers in transport sector.
  - Promote women’s entrepreneurship in transport sector and design entrepreneurship support measures that can better suit women taxi drivers, owners of transport companies or women employed in transport sector that are potential entrepreneurs.
  - Increase safety of employees in transport sector in occupations and jobs with increased safety risks (including exposure to gender-based violence and discrimination).
  - Review the gender pay gap in transport sector and design measures in accordance with causes and scale of gender pay gap.
  - Introduce family friendly corporate policies in order to stimulate more equitable division of family responsibilities among employed women and men.
  - Consider and improve the measures of transport companies to improve work-life balance and family care while encouraging men to become more involved in childcare. Flexible working hours as well as working from home at least a certain number of days a week or month for certain professions.
  - A forum should be set up to bring together representatives of transport companies to share best practices for increasing the number of women employed, designing studies, reports, visibility on social networks and conducting awareness-raising training.
- Introduce **gender disaggregated data collection for long-term monitoring of gender equality** and impacts of actions in transport sector.
    - Continuing collection of data pertaining to the percentage of women employed in management positions, gender patterns of distribution of incentives, per diem, business trips and educational activities.
    - Adoption of the Equality Code as well as the appointment of a person who will deal with gender issues or a specific organizational unit that will be responsible for this area within the companies.
    - Carrying out PR activities to overcome gender stereotypes in the transport sector, producing promotional material that is placed in the company's work environment.

### **Cross-cutting issues**

- **Raising awareness on gender equality** among relevant stakeholders, particularly those participating in designing public transport and the general public based on the outputs of the GETS study.
- **Integrate gender equality policies with sectoral transport policies** (especially at local level, to address the needs of women in local transport, through all aspects of the recommendations).
- **Establish cooperation** with various actors at the local level, who could make local gender equality mechanisms aware of this area and actively engage them in gender responsive traffic planning in the local community.
- **Capacity building and training** for public and private transport stakeholders on gender mainstreaming and the provision of gender responsive transport services including incentives mechanisms for transport service providers.

- **Advocate for gender mainstreaming** in transport through gender equality policies. Conducting gender analyzes (both locally and nationally) and cross-referencing data to share best practices and recommendations for improvement where data show problems.
- The following **data** would be required for a regular monitoring of the, accessibility, affordability and acceptance:
  - **Availability:** Bike parking facilities, length of cycling lanes and paths, number of pedestrian crossings, the quality of sidewalks, number of transport service providers and of taxi companies, condition of sidewalks (street lighting, greens, pedestrian zones), condition of cycling paths (separate lanes, separate path etc.),
  - **Accessibility:** Modal split, average travel speed (public transport/ car), congestion times, number of bus/ tram stations, passenger km with public transport, distance between stops, share of bike lanes or bike paths/ separated from car lanes in relation to road length.
  - **Affordability:** Census data on household expenditure on transport, number of bus/ train/ tram lines per 100,000 inhabitants, public transport stops per km<sup>2</sup>, share of electrified railway/ bus lines in relation to network length, share of urban population per bus frequency (every 10/30/60 minutes),
  - **Acceptance:** Data e.g. on harassment or security measures at stations, share of stations equipped with emergency buttons in relation to total stations, share of stations equipped with passenger alarm systems in relation to total stations, share of stations equipped with CCTV in relation to total stations, share of specific parking lots for female drivers in relation to total stations, number of working hours of security staff per station per week, zero tolerance policies - sexual harassment/ discrimination per public transport company, share of female customer complaints, share of stations equipped with customer desk, feedback mechanisms for complaints in public transport/ taxi companies.
  - Increase the number of women in management positions in transport companies and define a legal minimum of 40% of women employed in this sector.

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