



ANALYTIC NOTE

How Much Time Do Moldovans Spend for Various Types of Transport?

Public transport has a fundamental role in ensuring people's mobility, both within and between different settlements of the country, ensuring access to work, education, shopping, social life and travels¹ for different purposes. In this analytical note, we will answer the following questions:

- What are the peculiarities and differences regarding the time used for various means of transport, including the public one, between men and women?
- What means of transport are used by the population from villages and towns?
- For what purposes are people using most often the transport services?
- How the population from Chisinau municipality is using the public transport?

In order to find answers to these questions, we will use the results of the Time Use Survey carried out by the National Bureau of Statistics.

Peculiarities and differences regarding the time used for various means of transport, including the public one, between men and women

Over 83.5% of all people over 10 years old travel on a daily basis for various purposes. The average travel duration is about 1.4 hours a day. Women and men of 10 years and older travel almost the same amount of time, particularly 1 hour and 6 minutes in case of women and 1 hour and 19 minutes in case of men.

"Walking" ranks the first in terms of duration among all modes of transport used by the population. It constitutes about two thirds (64.4%) of this category of human activity (travelling). Next follows, travelling by bus/"minibus" (15.6%) and by car (11.8%). On average, people travel by trolleybuses about 3.9% of time, by other private transport - 2.3% of

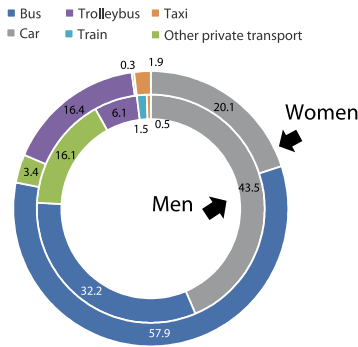
¹ According to the Activity Classifier of the Time Use Research, the activities in "travel" category include the following: (i) travel by private transport, including walking and waiting for the bus, train, minibus; ride by bicycle, ride by motorcycle, scooter or motorboat, travel by passenger

vehicle, another type of private transport or unspecified; (ii) public transport that includes travel by taxi, bus, trolleybus, train, plane, other means of public transport or unspecified.

time, by bicycle - 1.2% of time, by taxi and train - 0.4% of time each, and by motorcycle - 0.3% of time.

The cars (personal or hitchhiked) are the main means of transport used by men, whereas women mainly travel by buses. Therefore, women allocate more time for travel, as they use more intensely the public transport services: men spend 40.3% of their travel time in public transport, while women - 76.5% (Figure 1). Thus, the more moderate use of cars by women is complemented by their use of public transport, as well as taxi services, which are used 4 times more often by women than men².

Figure 1. Distribution of the average duration of travel activity, by types of transport and sex, % of the total time dedicated for travels by various types of transport³



Source: NBS

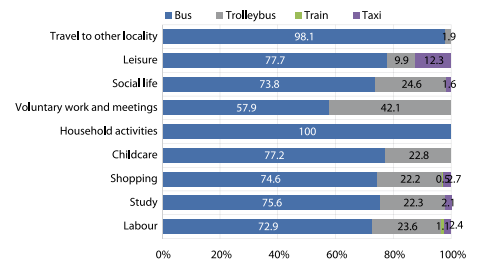
The main types of transport used by women are buses and trolleybuses (57.9% and 16.4% respectively of all travel time by various means of transport). Men spend much less time traveling by these means of public transport (32.2% for buses and 6.1% for trolleybuses, of the time allocated for the main types of transport).

² Public transport services include travels by bus, trolleybus, train, taxi, plane and other means of public transport or unspecified.

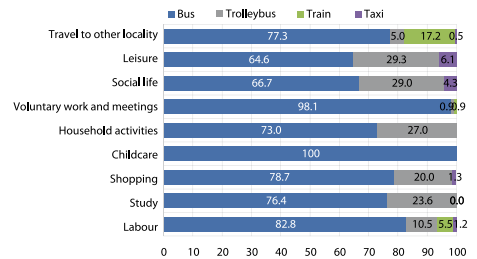
Still, the public transport services are used, both by women and men, for most travel purposes (Figure 2).

Figure 2. Distribution of the average duration of travels by means of transport, by travel purposes and sex, % of the total time dedicated for travels by means of transport

Women



Men



Source: NBS

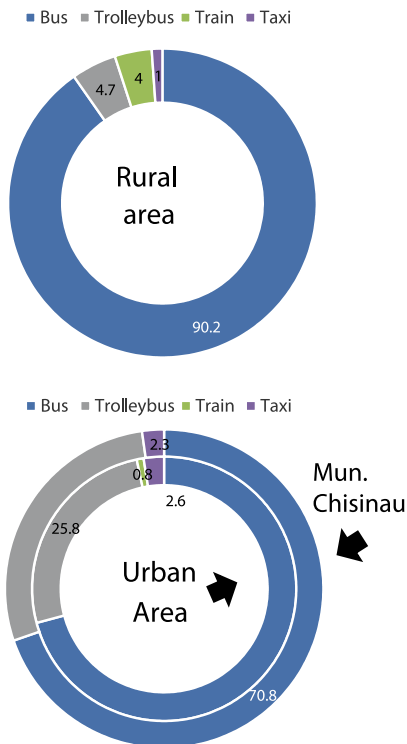
Some significant differences relate to men traveling longer periods of time by train to commute to their place of work, while women use this type of transport for shorter time periods. Additionally, women use taxi services more frequently (twice as much) than men for purposes of shopping/service procurement, as well as to commute to/from their workplace or school (Figure 2).

³ The sample does not include people who traveled by airplane.

Time differences for travelling by various means of transport between villages and towns

The rural population allocates about twice more time to travel by public transport than the urban one. Thus, in villages, on average 39.9% of the total time spent for traveling by different types of transport are allocated to public transport (an average of 1.1 hours a day for the person who used public transport), while in towns this proportion is

Figure 3. Distribution of the average duration of travelling by public transport, by the main types and residence areas, % of the total time dedicated for travels by a certain type of public transport



Source: NBS

70.7% (an average of 2.7 hours a day for the person who used public transport). This situation could be explained by the weak penetration of public transport services in rural settlements, as well as by the poor quality of roads, lower travel distances within the rural settlements, etc. (Figure 3).

Buses are the most popular form of public transport in villages, with the population spending 90.2% of their total travel time by public transport. In urban settlements where the population has more travel alternatives, these services are more diverse and include also trolleybuses.

The weaker penetration of public transport services in villages is not compensated by taxi services, which are used more often in towns, given the financial constraints of the rural population.

Both in towns and villages, the buses (including minibuses) are used widely for all travel purposes (Figure 4). In towns, the population resorts quite intensively to trolleybuses, except for the travels to other settlements and those for purposes of spending the leisure time.

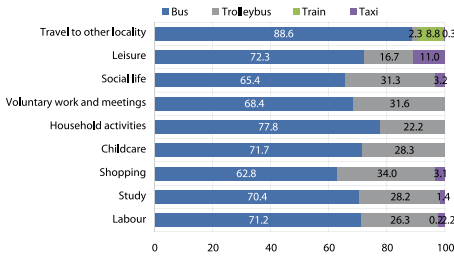
Some differences are noticed with the use of railway services. The urban population mainly uses them to travel to other settlements, for various purposes. At the same time, in villages this type of transport is used mainly to commute to/from the place of work, as well as to travel to other settlements (e.g. the neighbouring settlement or the rayon capital)⁴.

The taxies are used in towns for different purposes than in villages. Thus, while the urban population uses this type of transport mainly for spending their leisure time and social life, in the rural area taxis are used for purposes of shopping and services, as well as to commute to/from the workplace and school because of the limited access to other types of transport services (Figure 4).

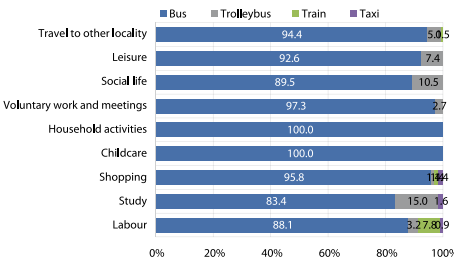
⁴ The hypothesis underlying this statement is the fact that the Moldovan villages are too small for the railway transport to be used for travels within the settlement. Therefore, when people declared using this type of transport to commute to/from the place of work, we conclude that they traveled to other settlements.

Figure 4. Distribution of the average duration of travels by public transport, by travel purposes, areas of residence, % of the total time dedicated for travels by public transport

In towns



In villages



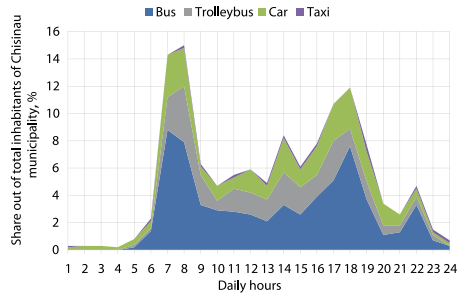
Source: NBS

How is the public transport used in Chisinau municipality?

The hours when the public transport services are used more intensely in the capital city confirm the fact that people resort to it mainly to commute to/from their workplace or school (Figure 5). Thus, people spend most of the time in transport in the period between 7.00 and 8.00 am, and 5.00 and 6.00 pm. At the same time, around 4.00 pm there is an increase in the use of transport services, asso-

ciated with the return of pupils/students from their classes, travels to lunch or carry out some personal activities during the lunch breaks.

Figure 5. The share of the inhabitants of Chisinau municipality travelling by means of transport, depending on the time of the day, %



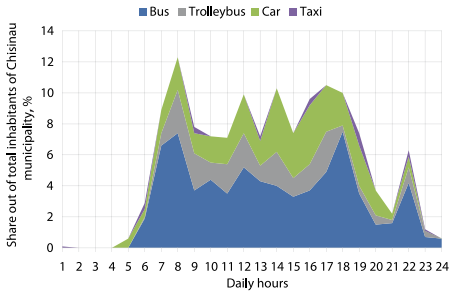
Source: NBS

During Saturdays and Sundays, the time schedule for using the public transport (buses and trolleybuses) is similar to the rest of the days (Figure 6). At the same time, some important differences are noticed in the case of car use (as a rule, own or hitchhiked car). This type of transport is used more intensely on Saturdays and Sundays, both because the public transport is not as frequent as during the rest of the week, as well as because people are more inclined to travel outside the city on weekends and use their own cars for this purpose.

Figures 5 and 6 reveal that the time used to travel by car (own or hitchhiked) correlates the most with the time used to travel by buses/minibuses and trolleybuses. Therefore, the private transport substitutes rather than complements the public transport, revealing the often unsatisfactory quality of the municipal transport services.

The morning and night hours are an exception, when the lack of public transport is compensated by the personal or hitchhiked cars (“passenger vehicles” category) and taxi services.

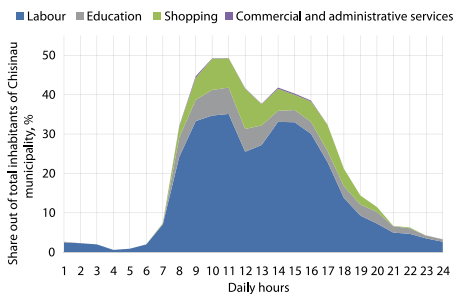
Figure 6. The share of the inhabitants of Chisinau municipality travelling by means of transport, during Saturdays and Sundays, depending on the time of the day, %



Source: NBS

The problem of lacking public transport during the morning-night hours is relevant, as during this period of time some people are still involved in employment or even educational activities (Figure 7).

Figure 7. The share of the inhabitants of Chisinau municipality who carry out daily activities that involve the use of transport, by travel purpose, %



Source: NBS

Therefore, these people are forced to compensate the lack of public transport during these hours with options that are more expensive or less comfortable (taxi services, or own or hitchhiked car).

Conclusions

- Women use more intensely the public transport services, while men use more often their private cars as the main means of transport;
- Among the various types of public transport, both men and women use most often buses for most of their travels. At the same time, the taxi services are used to a higher extent by women, mainly to commute to/from the workplace or school, shopping, as well as leisure time activities. At the same time, men use to a higher extent the railway transport to travel to other settlements;
- The rural population allocates more time to travel by public transport, due to their lifestyle and peculiarities of their work (mainly farming), infrastructure constraints, lower quality roads, limited financial possibilities, as well as lower travel distances within the rural areas;
- The railway transport is used mainly by the village population for purposes of travelling towards/from the place of work, located in the neighbouring settlement or rayon capital;
- The rural population uses taxi services much more seldom than the urban population and, as a rule, for other purposes. Thus, in villages this type of transport is used for "first necessity" travels (to/from the place of work or education, shopping), while in towns - for leisure time activities and social life;
- Though a certain part of the population carry out some activities during the morning-night hours, which imply using transport services (evening classes, professional work), there is literally no public transport during these hours.

Recommendations:

- Increasing the penetration of public transport services in rural settlements, in particular by facilitating the connections between the respective settlements and towns, should be a priority of the Ministry of Transport and Road Infrastructure;

- A crucial precondition for an enhanced access of the rural population to transport services is the rehabilitation of the road network, in particular in the rural area. In this respect, it is necessary to improve the management of public resources invested in road infrastructure;⁵
- It is appropriate to consider the possibility of introducing public transport services during the morning-night hours, both in the capital city and settlements where such a demand exists.



This material has been developed on the basis of the Time Use Survey, conducted by the National Bureau of Statistics, with the support of the United Nations Development Programme (UNDP), United Nations Entity for Gender Equality and Empowerment of Women (UN Women) and of the Swedish Government within the framework of the UN joint project "Strengthening the National Statistical System." The views expressed in this publication do not necessarily represent those of the institutions of the United Nations, Swedish Government or National Bureau of Statistics.

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⁵ „Capital Expenditures: Making Public Investment Work for Competitiveness and Inclusive Growth in Moldova”, World Bank, Report No 76310-MD.