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Regulating Return Labor Migration in the 21st Century: Foreign Experience and Russian Practice



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Abstract. The article analyzes current practices and measures of regulating commuting in different countries by classifying them according to the level, object of impact, actor, type of impact and purpose. The analysis shows that the regulation of migration processes in foreign countries is carried out by various branches of law, and measures are aimed not only at managing the flows of commuting, but also at mitigating its consequences at various levels. In Russia in general, commuting is mentioned in the strategies of socioeconomic development of individual regions without being fully integrated into management mechanisms. We reveal that its mentioning in regional development strategies does not take into consideration its actual volumes and implications for the regional economy. Thus, regional authorities do not sufficiently take into account economic and social consequences of commuting in their strategies. This also applies to its positive aspects, such as job creation and economic recovery, as well as potential negative effects associated with infrastructure overload, regional budget losses, etc. The importance of developing a system for monitoring commuting is emphasized, as well as the need for additional research to assess all aspects of its impact on the regions. The article is of interest to a wide range of researchers studying labor migration and regional development. The results can be used to develop practical recommendations for optimizing measures to regulate commuting in Russia, aimed at reducing its negative consequences and enhancing its potential for socio-economic development of territories.

Key words: migration, return labor migration, commuting, measures to regulate commuting, regional economy, region.

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Introduction

The existing labor shortage, the consequences of the COVID-19 pandemic, mobilization and "relocation" of part of the working-age population lead to an increase in the number of vacancies in all sectors and occupational groups. This negatively affects the sustainable development of the country's economy in the conditions of shrinking labor supply, low unemployment, high staff turnover and stagnating wages (Kapelyushnikov, 2024). The imbalance is exacerbated by the uneven development of different industries and territories, which creates challenges for the successful functioning of regional economies. Labor migration¹ is one of the most effective ways to alleviate the shortage of human resources, contributing to the redistribution of labor force between regions. A special role in this process is played by those forms of labor migration that do not involve relocation, such as commuting.

The aim of the work is to study foreign and Russian practices of regulating commuting. The scientific novelty of the study consists in the systematization of practices and justification of the need to regulate it.

We did not have a task to study the scale and consequences of commuting, but it is impossible to assess the need to regulate this phenomenon without their consideration. The commuting level has been stable for a long time (Shitova, 2024). It is difficult to estimate its scale due to the lack of monitoring practice of commuting², and currently, it is possible to study this phenomenon through indirect sources of information. For instance, the share of interregional commuting migrants in the structure of the employed population ranged from 1.3 to 2.0% in the period from 2013 to 2023, while the data of the All-Russian census of the population by taking into account interregional and intraregional movements of this kind recorded the specific weight of the studied group of the population -8.0% of the employed population in 2021 according to the results of the sample survey of the labor force³ (Sokolova, Kalachikova, 2023).

Previously, we have systematized the consequences of commuting at three levels: territory, employer and household (Sokolova, Kalachikova, 2023). At the household level, migration negatively affects the physical and mental health of an individual (Künn-Nelen, 2016; Shitova, 2024), reduces the level of subjective well-being (Chatterjee et al., 2020), and leads to problems in

¹ The concept of "migration" in this case does not imply a move with a change of permanent place of residence. It is used in a broad sense. For instance, according to L.L. Rybakovskii, any territorial movement between different settlements of one or several administrative-territorial units, regardless of duration, regularity and purpose, is migration in the broad sense of the word (Rybakovskii L.L. Population Migration: Forecasts, Factors, Policy. Moscow: Nauka, 1987). V.I. Perevedentsev distinguishes migration in the broad sense (all movements of people) and narrow sense (resettlement with a long-term change of residence) (Perevedentsev V.I. Methods of Studying Population Migration. Moscow: Nauka, 1975). M.B. Denisenko, V.A. Iontsev and B.S. Khorev define migration in the narrow sense as irretrievable inter-settlement movement, and in the broader sense they include resettlement, pendulum and seasonal migration (Denisenko M.B., Iontsev V.A., Khorev B.S. Migration. Moscow: Izd-vo MSU, 1989).

² Makhrova A.G., Bochkarev A.N. (2017). Commuting in the Moscow Region: New data. *Demoscope Weekly*, 727–728. Available at: http://demoscope.ru/weekly/2017/0727/tema01.php

³ The labor force survey results include the time range from 2013, since in this source it is from this year that it is possible to identify interregional commuting migrants in the structure of persons who work on the territory of another subject. With regard to the population census, we used the year 2021, since only the results of the last census made it possible to identify commuting migrants for all Russia's regions.

relationships within the family (Antonova, 2018). However, choosing such a livelihood strategy, labor migrant can ensure a higher income level than in the place of their residence, thereby increasing the standard of living (Öhman, Lindgren, 2003). The employer, as a rule, benefits from the employment of commuting migrants, as it has the opportunity to obtain from other settlements personnel with the required qualifications and at a satisfactory wage, which allows it to respond quickly to changes in the labor markets. The negative consequences at the employer's level include the risk of labor discipline violations associated with late arrivals and possible absenteeism due to difficulties that may arise on the way to work. At the territorial level, the positive effects are mainly redistribution of cash flows due to interregional cash transfers (Mkrtchyan, Florinskaya, 2016), increase in demographic and labor potential as a result of the influx of workingage population (Akhmetova, 2021). Negative effects include deterioration of the environmental situation and noise pollution caused by increased traffic (Ashforth, 2000), regional budget losses, etc.

Taking into account the relationship between the consequences of commuting and measures to regulate it will minimize the negative effects on the regional economy, employers and households, as well as contribute to the socio-demographic and economic development of the territory of origin⁴.

Materials and methods

The article consists of several parts in accordance with the research logic. The first part of the paper considers the practices of commuting regulation based on the literature analysis on the topic in the field of foreign studies. The next part of the work is devoted to the consideration of Russian practices in relation to the regulation of the phenomenon under study. In addition to scientific literature, we used the texts of strategies

of socio-economic development of Russian regions as sources of information. Further, we grouped the regions according to the criterion of mentioning commuting (presence or absence) and attitude to ward it (as a risk or as a strength). To assess the adequacy of accounting for the impact of commuting on regional development, the presence of measures to regulate commuting in the strategies of socio-economic development of the regions is correlated with the share of commuting migrants in the structure of the regions' employed population, as well as with the economic effects it has on the territory. As part of the latter task, we used data from the All-Russian Population Census-2020 (ARPC-2020), data on the average nominal accrued wages of workers in the full range of organizations in the economy as a whole in the region of work, as well as information from the Ministry of Finance of the Russian Federation on the executed consolidated budgets of the constituent entities.

We took into account the results of the application of the methodology for calculating the under-received personal income tax (hereinafter – PIT) to assess the economic effects in the structure of the PIT revenue part of the consolidated budget of the corresponding region. This methodology allowed presenting extremely approximately the amount of money, that commuting migrants do not bring to the budget of the region of origin (Sokolova, Kalachikova, 2023). Personal income tax is 13% of wages and goes to the budget of the subject where the commuting migrant works. In the case of interregional commuting, 85% of the tax settles in the budget of the subject in which the individual works, and 15% in the budget of the specific municipality of work. In sum, the entire amount of personal income tax remains in the region of work, not the residence of the migrant worker⁵.

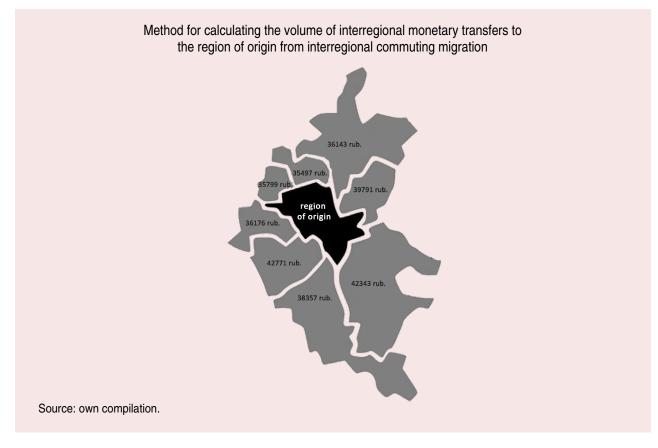
⁴ The territory of origin in this paper means the territory of residence of a commuting migrant.

⁵ Budget Code of the Russian Federation 145-FZ, dated July 31, 1998 (ed. Of April 14, 2023). Articles 56 and 61. *SPS Konsultant Plus*. Available at: https://www.consultant.ru/document/cons_doc_LAW_19702/c347478b850fb7c4a92141 cb188a76d83ac72e0f

In addition, we applied the method of assessing the economic consequences for the territory of origin by calculating the volume of interregional cash transfers from commuting. Russian researchers note that citizens who carry out labor activity outside their locality spend a significant part of their income in the region of residence rather than the region of work; in general, the authors note the range from 2/3 to 3/4 of earnings (Mkrtchyan, Florinskaya, 2019), which they spend at the place of residence.

We took as a basis the hypothesis that 2/3 of their earnings are spent by interregional commuting migrants at the place of their permanent residence, where it is made the expenses of various sizes and purposes, such as rent, children's education, etc.. (Maltseva, Plakhov, 2014). However, based on the theoretical analysis of scientific works, we know that this kind of labor movements are not carried out

over long distances. We stipulate in advance that the calculations are approximate. Knowing the region of origin and the approximate radius of movement of the population group under consideration, we make the assumption that commuting migrants do not go further than the borders of the adjacent entity. For each region of origin, we have identified satellite regions where commuting migrants can carry out labor activities. Since the available statistical information does not provide information on the sphere in which commuting migrants are employed, the average nominal accrued wages of workers for a full range of organizations in the economy as a whole is taken as a starting point, which is also a limitation of our study, as it strongly averages the obtained effects (Figure). Having identified the subjects adjacent to the region under study, we were able to calculate the average amount of cash transfers that a commuting migrant realizes in the



 $^{^5}$ Бюджетный кодекс Российской Федерации от 31.07.1998 № 145-ФЗ (ред. от 14.04.2023). Статьи 56 и 61 // СПС «КонсультантПлюс». URL: https://www.consultant.ru/document/cons doc LAW 19702/c347478b850fb7c4a92141cb188a76d83ac72e0f

place of their residence during the year. We used the following formula for this purpose:

$$VIMT_{ICM} = \left(\frac{2}{3} av. sal.* number_{ICM}\right) * 12months,$$

where $VIMT_{ICM}$ — volume of interregional monetary transfers of interregional commuting migrants;

*number*_{ICM} – number of interregional commuting migrants in the region of origin, rubles;

av. sal. — average nominal accrued salary of employees in the full range of organizations in the economy as a whole in the region of operation, rubles.

It is important to note that the calculations made are approximate, which, in addition to the above-mentioned limitations of the study, is due to insufficient consideration of commuting. The WNP-2020 data used in the study reflect only interregional commuting. The calculations cover only part of the economic impact of the phenomenon under consideration on the source region. In addition to interregional cash transfers and losses of the consolidated budget from underreceived personal income tax, there are many other aspects of the impact of commuting on the regional economy. A full assessment of the economic consequences of commuting requires a deeper and more comprehensive analysis that would take into account a wide range of its impact. This underscores the need to develop commuting accounting and monitoring systems, and to conduct additional research to accurately assess all aspects of the impact of commuting on the regions of origin and regions of employment.

Review of measures to regulate commuting migration: foreign experience

The regulation of commuting affects different areas that are not directly related to migration policy. Commuting is an important tool for sustainable development, as it helps to balance labor supply and demand, allowing regions to attract labor resources in accordance with the needs of the economy. In addition to labor, commuting affects transport policy, stimulates the search for new infrastructure solutions, and requires environmental policy decisions.

One of the distinctive features of foreign research and practice of commuting regulation is that the phenomenon of commuting is not something "hidden from the eyes" of the public, statistics, researchers, government authorities, employers, etc. In the practice of foreign countries, "commuting" is perceived as a phenomenon that is constantly present in the daily life of society, it is observed, actively studied, and also taken into account in the formation of regulatory measures in the framework of labor, environmental, transport, housing, land use policy, etc. When analyzing the experience of foreign countries related to the practice of regulating the commuting processes, we revealed that measures can be aimed not only at managing its flows and volumes, but also at leveling the negative effects of this process at different levels (Tab. 1). For instance, at the territory level, the measures to regulate the phenomenon under consideration are taken into account in national strategies for the development of the transport system, in regional and urban programs of development and planning of territories, at the employer level they are fixed in local regulatory legal documents and have the scope of action in the territory of the enterprise, and the household level is defined in the behavioral practices of individuals, which are formed under the influence of social norms, beliefs, etc.

⁶ Our paper systematized information on such a phenomenon as "commuting" because, in our opinion, it is the most relevant to the Russian phenomenon "маятниковая трудовая миграция".

Table 1. Classification of foreign measures of commuting regulation

	i					
Basis	Classification	Examples				
By level	Territory level	The concept of "Transit-oriented development": it is the basis of urban planning documentation of a number of cities (London, San Francisco) and embodies a multifaceted approach to urban planning, which takes into account the interrelationships between different elements of the urban environment and aims to create sustainable, comfortable, accessible living conditions for all population groups. Within this framework, the regulation of pendulum labor migration is mentioned in such items as: — creating conditions where housing and workplaces are in close proximity to transportation hubs; — equal development of central and peripheral areas by creating prerequisites for reducing the use of road transport; — increasing the attractiveness and efficiency of public transport, creating an integrated public transport system; — provision of showers, storerooms and locker rooms for staff traveling long distances to work				
	Employer level	TravelWise is a local program of Ottawa to be implemented at the employer level to improve travel conditions for commuters. The program involves a customized plan that includes a site assessment, a commuter survey, and information support. The program offers a number of measures such as: — increasing the attractiveness of using alternative means of transportation as a means of commuting to work; — parking lot management				
	Household level	The practice of carpooling involves carpooling between different employees to travel to work together. In some countries, the Ministry of Transport provides free parking for carpooling participants (e.g. Ottawa, Canada)				
By object of impact	Transport systems	 Allocating additional lanes for public transportation only or for those who practice carpooling; reduction of parking spaces for private cars; improving the frequency, capacity and speed of local public transport from regional transport connections, upgrading the condition of public transport and optimizing routes to meet user demand; smart traffic light system 				
	Urban environment and housing construction	 Implementation of housing development near public transportation stations; introduction of green and park areas, improvement of pedestrian infrastructure 				
	Individual's behavior and health	 Incentivize employees to use bicycle transportation; informing individuals about the cost of time and money spent on commuting to and from work 				
	Ecology	- Limiting emissions of harmful substances; - encouraging the use of electric vehicles				
By actor	Legislative authorities at various levels	Master Plan for Urban Development is a long-term planning document for urban development, addressing aspects of housing planning, transportation network development, economy, environmental issues and social aspects. In the context of commuting, it is proposed to: — development of public transportation, which includes increasing the availability of public transportation and reducing personal motor vehicles; — creating compact neighborhoods around transportation hubs (e.g. San Francisco)				
	Educational organizations	Special student programs. A number of universities in the United States and Europe are developing preference programs for students who commute regularly from other communities. These programs often include: – system of discounts for commuter travel on public transportation or reimbursement of fares; – programs to encourage bicycle transport: creating safe and convenient bicycle lanes and parking, rental programs, etc; – carpooling programs: creation of online platforms for finding carpooling companions, provision of special parking lots for carpooling (e.g. Univercity of California).				
	Employer	Hybrid work schedule: performing work duties partly from home, partly from the office				
	1	I .				

End of Table 1

Classification	Examples				
Direct	Restriction of traffic, e.g., on certain days private cars are restricted and free public transportation is introduced (e.g., "Journée sans voiture" in Paris)				
Indirect	Tax incentives. In practice, some countries (e.g. the United States and Canada) have programs that offer tax credits for employees who commute to work. Both the employee and the employer in this case do not pay part of the tax rate, which allows them to save money				
Behavioral	Nudging. This approach involves using small changes in the environment that are intended to change people's behavior without coercion. An example of such an influence on behavior might be placing bicycle parking lots closer to the entrance of the building where an individual works than parking lots. Social norms. This approach uses the influence of social norms on people's behavior. In the context of commuting, it happens that people often choose the same mode of travel as their friends, colleagues, neighbors or representatives of a reference social group. As part of this influence, individuals are, for example, informed (in the form of billboards or videos) that modern and environmentally conscious people already use public transportation instead of private cars. Loss aversion. This approach relies on the fact that people are more sensitive to losses than gains. For example, providing information on the cost of idling in traffic jams (lost time, additional gasoline costs) while emphasizing the negative consequences of car use (e.g., pollution, increased congestion). Gamification. The use of gadgets to change people's behavior is studied. In this direction we can mention such ways as creation of games and applications, when users form the desired behavior through the performance of tasks with rewards, leaderboards, as well as communication within the application with the aim of mutual support of participants				
Leveling the impact	Regulatory measures that encourage the use of alternative modes of travel (bicycles, electric vehicles, public transportation) to reduce traffic and emissions.				
Volume and flow management	Introduction of congestion charging (e.g. Congestion Charge in London); restricting traffic during certain hours reduces the flow of vehicles entering the settlement, forces the use of alternative means of transportation, and helps to enrich the municipal budget.				
	Direct Indirect Behavioral Leveling the impact Volume and flow				

According to: (Zuo et al., 2024; Zimmermann et al., 2024; Franssens et al., 2021; Taale et al., 2022; Reindl et al., 2023; Whillans et al., 2021; Aravind et al., 2024; Biggar, 2019; Ek et al., 2021; Hidalgo-González et al., 2022; Pantelaki et al., 2024); City of Ottawa. Employee commuting programs. Available at: https://ottawa.ca/en/parking-roads-and-travel/employee-commuting-programs#section-e4c446f8-ec45-47cf-9934-f300a7255d4c; City Plan 2036. Shaping the future City. City of London Corporation. Available at: https://democracy.cityoflondon.gov.uk/documents/s103835/Appendix%201%20Draft%20Plan.pdf; Transportation. San Francisco General Plan. Available at: https://generalplan.sfplanning.org/; Commuter Support & Programs. University of California. Available at: https://commuterstudents.ucla.edu; Why a Car Free Day in Paris. Paris sans voiture. Available at: https://www.parissansvoiture.org/; Commuter tax benefit. Great Mercer TMA. Available at: https://gmtma.org/commuter-tax-benefit/; Congestion Charge in London. Visit London. Official Visitor Guide. Available at: https://www.visitlondon.com/traveller-information/getting-around-london/congestion-charge

Actors of commuting regulatory measures can be governmental authoritiess that dictate measures through legislative acts and strategic documents (Zuo et al., 2024), as well as municipal authorities that work out infrastructure development strategies at the level of municipalities and cities (Waedhani et al., 2020), the very enterprises that employ commuting migrants (Taale et al., 2022), and educational organizations⁷.

Measures to regulate commuting are not reflected in any separate document on migration regulation, but are taken into account in the drafting of legal acts affecting various spheres of society. Since commuting cannot be imagined in isolation from transportation movements, there are many measures in the practice of regulating this process, which are designed to reduce the negative effects of transportation. The practice of foreign countries presents management decisions affecting transport systems, for example, public transport in terms of expanding the network of routes, increasing the frequency of travel (Pantelaki et al., 2024), modernization of the transport fleet. Some of the measures affecting transport systems are designed to mitigate the environmental impacts of commuting. There are such practices as promoting the use of transport consuming alternative energy sources

⁷ Commuter Support & Programs. University of California. Available at: https://commuterstudents.ucla.edu

(Hidalgo-Gonzalez et al., 2022), developing bicycle infrastructure (construction of bicycle lanes and bicycle parking lots, bicycle rental programs) (Ungsuchaval et al., 2022), improving pedestrian infrastructure (sidewalks and crosswalks) (Zuo et al., 2024). Carpooling is being introduced to minimize emissions, relieve roads from excessive vehicles (Kanaroglou et al., 2015). Carpooling allows for subsidized sharing of travel costs, and passengers have additional time for resting, reading, socializing, etc. during long trips. Special parking spaces are allocated, apps are created to find passengers⁸, and tax incentives are used for participants in these programs9. Moreover, to minimize the cost of money and time for people who work in other communities, convenient transfer hubs are formed, and the system of connections between different modes of transport is improved (Zhu et al., 2022).

In addition to transport infrastructure, commuting transforms the urban environment over time. In the practice of foreign countries, commuting includes movements not only from one settlement to another, but also within the city, in particular within large metropolitan cities, such as Beijing (Zhao et al., 2011). In this regard, there are a number of measures to regulate the phenomenon under consideration in relation to the urban planning sphere. For example, one urban planning practice is to concentrate housing and employment development near required public transportation stations, "transit-oriented development" (Zhu et al., 2022). To control the volume of flows of commuting migrants using motor vehicles, road construction is restricted in favor of pedestrian zones and bicycle paths (Zuo et al., 2024), "green" areas (parks, squares) are created (Zulian et al., 2022), which, on the one hand, encourage walking, on the other hand, improve the ecology of the city.

To minimize the negative effects of commuting at the household level, regulatory measures such as tax incentives (there is a practice of taking tax deductions from an employee's tax return for systematic commuting between home and workplace) (Steinsland et al., 2018), fare subsidies, transportation and parking subscriptions (Pantelaki et al., 2024) are attracted. Some companies introduce a hybrid work schedule for their employees, which involves the individual being partly at home and partly at the office. This measure contributes to the creation of a home-work balance for the individual, which affects productivity and company image, as well as reducing the frequency of commuting (Taale et al., 2022).

Interventions can take the form of direct and indirect effects on commuting, but behavioral regulation is of particular interest because it is a relatively new field. Such measures are based on the principles of behavioral economics, namely nudge theory (Franssens et al., 2021), loss aversion (Dauth, Haller, 2019), social norms (Biggar, 2019), use of digital tools ("gamification" (Reindl et al., 2023), and digital nudging (Zimmerman et al., 2024)). Indirect regulatory measures at first glance seem very similar to behavioral measures, but at the core they have significant differences, which made it possible to unite them into a separate group. For instance, indirect methods are aimed at changing the external environment or systemic factors, which then influence people's behavior (improvement of transport infrastructure, regulation of parking and tax incentives for the use of certain types of transport). Behavioral measures focus on changing decision-making and behavioral contexts, such as changing choice architecture or establishing new social norms. Indirect measures are often implemented with engineering, economic, or legal tools that work at the macro level, while behavioral measures use principles of behavioral economics and psychology to create small changes that work at the individual level. These measures, which take

Sharing a sustainable way of life. Repsol. Available at: https://www.repsol.com/en/energy-and-the-future/sustainable-mobility/what-is-carpooling/index.cshtml

Ommuter Tax Benefits. SLO Regional Rideshare. 9 Available at: https://rideshare.org/tax-benefits/

into account the peculiarities of human thinking, are based on the application of minor modifications of the environment in order to form the required behavior without coercion (Aravind et al., 2024). Behavioral regulatory measures have results, but the rate of change in people's behavior is not as rapid as with other measures. The potential of behavioral interventions in combination with direct and indirect interventions is high (Whillans et al., 2021) because it promotes the formation of stable habits and long-term patterns of behavior.

Current situation regarding the regulation of commuting in the Russian Federation

Currently, commuting in the Russian Federation is not regulated by legal and regulatory documents (Gruzdeva, Kalachikova, 2023). This type of spatial movement is reflected in the strategies of socioeconomic development of regions, where commuting is most often mentioned as an existing phenomenon or described as a factor that negatively affects the region's development. We analyzed the strategies of socio-economic development of all constituent entities of the Russian Federation (*Tab. 2*).

It is important to note that the presence or absence of mention of commuting in these documents is not associated with its specific weight in the structure of the employed population, as well as with the volume of interregional cash transfers or the share of under-received personal income tax in the structure of the consolidated budget of the region. As a result of calculations, we obtained that the spread of values of interregional cash transfers is quite significant and has a direct dependence on the specific weight of interregional commuting. For instance, the maximum volume of interregional cash transfers is observed in the Moscow Region (227044.21 million rubles per year), the Leningrad Region (54118.72 million rubles per year) and Moscow (13650.98 million rubles per year), and the minimum – in the Chechen Republic (13.63

million rubles per year), the Magadan Region (12.51 million rubles per year) and the Chukotka Autonomous Area (0.78 million rubles per year). These transfers revitalize the economy of the region of origin of commuting migrants, as well as contribute to the improvement of the financial well-being of the household of the participant of such spatial movements. In the case of underreceived personal income tax, the variation in monetary equivalent ranges from 0.204 to 11620.938 million rubles per year, which is a different share in the structure of consolidated budget revenues – from 0.004 to 25.631%, respectively (Sokolova, Kalachikova, 2023).

As a result of the grouping, the group of subjects that positively assess the phenomenon under consideration turned out to be the smallest. It includes five regions characterized by a different share of commuting in the employed population structure. The texts of their strategies include recommendations on the need to form reverse flows of commuting (Leningrad Region¹⁰), as well as to improve the forms and methods of coordination of entities included in the agglomeration zone. The strategy of the Altai Territory¹¹ recognizes that commuting is "one of the effective mechanisms of rational labor force distribution", and within the framework of regional policy proposes the creation of a platform for interaction between employers and employees. The Strategies for socio-economic development of the Yamal-Nenets Autonomous

¹⁰ On the Strategy for Socio-Economic Development of the Leningrad Region until 2030 and the invalidation of the regional law "On the Concept of Socio-Economic Development of the Leningrad Region until 2025" (as amended on December 19, 2019). *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

¹¹ On approval of the Strategy for socio-economic development of the Altai Territory until 2035: Law of the Altai Territory 86-ZS, dated September 6, 2021. *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

Table 2. Grouping of regions by mentioning commuting in the strategies of socioeconomic development of the RF constituent entities, 2021

RF constituent entity	income tax in the income tax reve	nder-received personal he structure of personal enue of the consolidated budget	Volume of interregional cash transfers, million rubles per year	Specific weight of commuting, %
		% million rubles		
	1	phenomenon of commuti		T
Leningrad Region	25.631	11620.938	54118.72	24.7
Altai Territory	0.392	108.745	698.76	15.3
Republic of Khakassia	0.463	39.908	208.45	10.5
Voronezh Region	0.065	25.414	124.22	8.3
Yamal-Nenets AA	0.147	88.413	294.66	0.4
	Phenomenon of co	mmuting is noted (15 sub	jects)	
Republic of Adygea	19.199	941.212	12531.23	15.5
Lipetsk Region	1.629	323.560	1628.61	13.5
Kaluga Region	6.897	1578.949	7183.52	13.1
Republic of Crimea	0.813	215.426	1210.99	11.7
Saint Petersburg	0.313	932.678	3308.42	0.4
Irkutsk Region	0.005	2.928	15.72	6.6
Primorye Territory	0.304	154.171	835.70	5.2
Omsk Region	0.100	29.787	188.56	5.1
Republic of Dagestan	0.285	68.636	374.56	4.1
Bryansk Region	0.854	131.443	764.45	0.8
Neg	atively assess the ph	enomenon of commuting	(7 subjects)	
Moscow Region	21.233	56070.698	227044.21	21.25
Vladimir Region	7.016	1611.367	9178.68	13.1
Republic of North Ossetia–Alania	2.695	174.203	891.70	10.7
Ivanovo Region	0.725	82.9	518.55	8.5
Ulyanovsk Region	1.283	214.042	1176.41	8.5
Krasnodar Territory	0.350	330.147	1279.75	5.6
Sevastopol	0.576	49.287	240.24	0.7
	No me	ntion (56 subjects)		<u>'</u>
Republic of Mari El	5.168	436.358	2507.59	17.09
Belgorod Region	0.381	112.547	560.39	15.3
Tula Region	5.718	1598.420	8410.39	13.45
Kaliningrad Region	0.506	109.771	596.74	12.82
Ryazan Region	0.753	145.847	770.47	12.7
	1		ı	1
Nenets AA	3.316	78.382	329.17	3.18
Republic of Kalmykia	0.612	13.964	82.24	2.13
Khanty-Mansi AA	1.623	1365.231	5127.42	1.71
Magadan Region	0.025	2.993	12.51	1.29
Chukotka AA	0.004	0.204	0.78	0.29

The list for 2021 does not include Moscow, as this entity does not have a valid socio-economic development strategy, there is only a draft of the inactive document "Strategy for Socio-Economic Development of Moscow for the period until 2025".

Source: Strategies for socio-economic development of the allocated territories, own compilation.

Area¹² and the Voronezh Region¹³ also note the positive impact of commuting movements on the employment of suburban settlements.

Those regions, which in their strategies indicate only the fact of the presence of commuting, were categorized in the group of those stating this phenomenon. The variation in the share of commuting is also variable, which can be said about the scale of its consequences for the economy. Regions in this group have the potential to introduce measures to regulate commuting, as they already recognize the existence of this type of migration in their regional legal acts.

In the regions that negatively assess commuting, the phenomenon under study is described as a risk factor (Ivanovo Region¹⁴), as a weakness (Vladimir Region¹⁵), and as a key problem of the subject's development (Republic of North Ossetia—Alania¹⁶). A number of regions (Moscow¹⁷ and

Ivanovo¹⁸ regions, Sevastopol¹⁹) declare the need to reduce labor migration from the region to a large agglomeration center. The Moscow Region²⁰ proposes the creation of alternative centers of attraction as measures to regulate the volume and flows of commuting, which will help reduce the outflow to Moscow and preserve labor resources in the peripheral areas of the region. It is proposed to approve competitive wages at enterprises and increase the number of jobs²¹ in the Ivanovo Region, to control the volume of outgoing commuting migrants. In the Krasnodar Territory²², it is proposed to create prerequisites for self-actualization and training in the hubs of the Territory.

The group of subjects with no mention of the existence of commuting was the most numerous. In accordance with Table 2, the haphazard inclusion of references to the need to regulate commuting in the documents of strategic planning of regional development, without reference to the scale of the spread of commuting, as well as to the size of economic consequences for the subject, becomes noticeable. For example, a quarter of the regions from the list of those that do not mention the

¹² On the Strategy for Socio-Economic Development of the Yamal-Nenets Autonomous Area until 2035 (as amended on February 17, 2022): Resolution of the Legislative Assembly of the Yamal-Nenets Autonomous Area 478, dated June 24, 2021. *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

¹³ On the Strategy of socio-economic development of the Voronezh Region for the period until 2035: Law of the Voronezh Region 165-OZ, dated December 23, 2019". *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

¹⁴ On Approval of the Strategy for Socio-Economic Development of the Ivanovo Region until 2030 (as amended as of June 14, 2022: Resolution of the Government of the Ivanovo Region 220-p, dated April 27, 2021). *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

¹⁵ On Approval of the Strategy for Socio-Economic Development of the Vladimir Region until 2030 (with amendments as of January 10, 2024)" Decree of the Governor of the Vladimir Region 10, dated June 2, 2009. Electronic fund of legal and normative-technical documents "Codex Consortium". Available at: docs.cntd.ru

¹⁶ On the Strategy for Social and Economic Development of the Republic of North Ossetia–Alania until 2030 (as amended on November 11, 2021): Law of the Republic of North Ossetia-Alania 60-RZ, dated September 18, 2019. *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

¹⁷ Strategy for Socio-Economic Development of the Moscow Region until 2030. *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: https://www.economy.gov.ru

¹⁸ On Approval of the Strategy for Socio-Economic Development of the Ivanovo Region until 2030 (as amended as of June 14, 2022: Resolution of the Government of the Ivanovo Region 220-p, dated April 27, 2021). *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

¹⁹ On approval of the Strategy for socio-economic development of Sevastopol until 2030: Law of the city of Sevastopol 357-ZS, dated July 21, 2017. *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

²⁰ Strategy for Socio-Economic Development of the Moscow Region until 2030. Ministry of Economic Development of the Russian Federation. Available at: https://www.economy.gov.ru

²¹ On approval of the Strategy for socio-economic development of the Ivanovo Region until 2030 (with amendments as of June 14, 2022): Resolution of the Government of the Ivanovo Region 220-p, dated April 27, 2021. *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

²² On the Strategy for Socio-Economic Development of the Krasnodar Territory until 2030 (as amended on December 5, 2023): Krasnodar Territory Law 3930-KZ, dated December 21, 2018. *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: docs.cntd.ru

phenomenon under consideration have a higher share of commuting in the employed population compared to the national indicator, which, in our opinion, makes them potential subjects for the introduction of measures to regulate it. Some regions (e.g., the Ivanovo Region and the Krasnodar Territory) that negatively assess commuting have a low share of losses from lost personal income tax and a significant amount of interregional cash transfers to the source region, which indirectly indicates the prevalence of positive economic effects. Strategies for socio-economic development of regions, where this phenomenon is mentioned, mostly do not have a specific description of measures and directions of regulation, except for units that see the purpose of controlling the volume of commuting movements. We did not find any mention of the need to level the negative consequences of the phenomenon under consideration in any of the documents mentioned above.

Previously systematizing the experience of foreign countries in regulating commuting, we noted that the measures under consideration are reflected in urban planning documents. Such practice also exists in Russia. For instance, it becomes evident from the Regulations on Territorial Planning of Moscow that in planning an effective settlement system, creating comfortable transport accessibility and placement of objects of mass labor and cultural and domestic gravity should take into account the commuting²³. This document also declares that the commuting volume in Moscow should be regulated in cooperation with the Moscow Region. It is also possible to find implicit references to the need to regulate this type of movement in urban planning documents of other RF constituent entities. For example, the design solutions of the

Ufa general plan provide for a balance of population and labor application places, which indicates that the authorities understand the transformational processes of employment and settlement system and indirectly indicates the need to regulate the commuting²⁴.

The lack of clear regulatory measures in Russian documents can be explained by the fact that the commuting effects have recently come to the attention of Russian scientists and managers. The difficulty of their identification and assessment is due to the fact that data for the study of commuting movements are not published and are not properly accumulated. Ultimately, this affects the measures of commuting regulation, and especially their absence in the Russian realities.

Conclusion

The study revealed that commuting remains underestimated in most Russian regions. The lack of a systematic approach to its regulation deprives regions of the opportunity to effectively use its potential to increase employment and economic growth, as well as to minimize associated risks. However, before starting to develop any support measures or other management initiatives, it is necessary to clearly understand the real scale of this phenomenon. Russian researchers have long focused attention on the problems of migration statistics (Perevedentsev, 1975; Mkrtchyan, 2009), including the need to take into account commuting (Khorev, Chapek, 1978; Makhrova, Bochkarev, 2017; Shitova, Shitov, 2016), actualize the importance of developing measures to regulate commuting in the form of support focused on caring for the health and well-being of commuting migrants (Shitova, 2024).

²³ Regulations on Territorial Planning of Moscow. Annex to the Law of Moscow 17, dated May 5, 2010 "On the General Plan of Moscow". Official portal of the Mayor and Government of Moscow. Available at: https://www.mos.ru/mka/function/dlia-spetcialistov/dokumenty-territorialnogo-planirovaniia/

²⁴ On approval of the General Plan of the urban district of Ufa of the Republic of Bashkortostan until 2042: Decision of the Council of the urban district of Ufa of the Republic of Bashkortostan 12/5, dated March 23, 2022. *Electronic fund of legal and normative-technical documents "Codex Consortium"*. Available at: https://docs.cntd.ru/document/578171943

To date, the need to create a system of accounting for commuting in Russia is due to the fact that previously it was done only indirectly, which does not allow accurately assessing the volumes and directions of flows and fully understand the impact of commuting on regional development. Commuting has a significant impact on the economy of both the regions of origin and the regions of work: regular monetary transfers of migrants revitalize the economy of the regions of origin, such labor mobility allows solving the issues of imbalances in the labor market and employment in small towns and rural areas. Underestimation of the negative effects of commuting on regional budgets leads to the fact that measures to support infrastructure, transportation networks and social policy remain insufficient and ineffective. In addition, the lack of studying the commuting effects does not allow minimizing their negative impact on households, employers and socio-

economic development of the territory. Despite this, currently in Russia the effects of commuting are not properly taken into account neither in the strategic documents of the regions, nor in any other normative legal acts. A well-established accounting system would make it possible to assess the real contribution of commuting migrants to the economy, and up-to-date data on the movement of labor force between regions can be used to eliminate imbalances in the labor market, helping to prevent labor shortages in some regions and labor surpluses in others, to create programs to improve the quality of life and, in general, to contribute to the sustainable development of regions.

Thus, the creation of commuting accounting system will be the foundation for the development of effective measures for its regulation, aimed at minimizing the negative effects and maximizing its positive impact of commuting at the level of the territory of the region, employer and household.

References

- Akhmetova G.F. (2021). Dynamics of labor migration in the Republic of Bashkortostan. *Vestnik Rossiiskogo universiteta druzhby narodov. Seriya: Sotsiologiya=RUDN Journal of Sociology*, 21(2), 265–278. DOI: 10.22363/2313-2272-2021-21-2-265-278 (in Russian).
- Antonova A.V. (2018). The commuters' way of life in the Moscow agglomeration. *Migratsiya i sotsial'no-ekonomicheskoe razvitie*, 3(3), 113–118. DOI: 10.18334/migration.3.3.41042 (in Russian).
- Aravind A., Mishra S., Meservy M. (2024). Nudging towards sustainable urban mobility: Exploring behavioral interventions for promoting public transit. *Transportation Research Part D*, 129, 2–25. Available at: https://doi.org/10.1016/j.trd.2024.104130
- Ashforth B.E. (2000). Role Transitions in Organizational Life: An Identity-Based Perspective. New York: Macmillan.
- Biggar M. (2019). Unpacking the influence of social norms and past experience on commuting mode choice. *Journal of Behavioral Public Administration*, 2(1), 1–8. DOI: 10.30636/jbpa.21.52
- Chatterjee K. et al. (2020). Commuting and wellbeing: A critical overview of the literature with implications for policy and future research. *Transport Review*, 40, 5–34.
- Dauth W., Haller P. (2019). Loss aversion in the trade-off between wages and commuting distances. In: Beiträge zur Jahrestagung des Vereins für Socialpolitik 2019: 30 Jahre Mauerfall Demokratie und Marktwirtschaft Session: Urban Economics, No. D12-V3, ZBW Leibniz-Informationszentrum Wirtschaft, Kiel, Hamburg.
- Ek Ch., Wårell L., Andersson L. (2021). Motives for walking and cycling when commuting differences in local contexts and attitudes. *European Transport Research Review*, 13(1), 1–12. DOI: 10.1186/s12544-021-00502-5
- Franssens S., Botchway E., Swart W., Dewitte S. (2021). Nudging commuters to increase public transport use: A field experiment in Rotterdam. *Frontiers in Psychology*, 12, 1–12. DOI: 10.3389/fpsyg.2021.633865
- Gruzdeva M.A., Kalachikova O.N. (2023). Problems of legal regulation of employment of temporary labour migrants. *Zhurnal issledovanii po upravleniyu=Journal of Management Studies*, 5, 64–74 (in Russian).

- Hidalgo-González C., Rodríguez-Fernández M.P., Pérez-Neira D. (2022). Energy consumption in university commuting: Barriers, policies and reduction scenarios in León (Spain). *Transport Policy*, 116, 48–57. DOI: https://doi.org/10.1016/j.tranpol.2021.10.016
- Julsrud T.E., Randi Hjorthol R. (2020). Commuting in knowledge-intensive organizations: An outline of six different practices. *International Journal of Sustainable Transportation*, 15(2), 1–15. DOI: 10.1080/15568318.2020.1833116
- Kanaroglou P.S, Higgins Ch., Chowdhury T. (2015). Excess commuting: A critical review and comparative analysis of concepts, indices, and policy implications. *Journal of Transport Geography*, 44, 4–27. DOI: 10.1016/j. jtrangeo.2015.02.009
- Kapelyushnikov R.I. (2024). *Eskalatsiya vakansii na rossiiskom rynke truda (dinamika, struktura, triggery)* [Escalation of Vacancies on the Russian Labor Market (Dynamics, Structure, Triggers)]. Preprint: Nats. issled. un-t "Vysshaya shkola ekonomiki". Moscow: Izd. dom Vysshei shkoly ekonomiki.
- Khorev B.S., Chapek V.N. (1978). *Problemy izucheniya migratsii naseleniya* (statistiko-geograficheskie ocherki) [Problems of Studying Population Migration (Statistical-Geographical Essays)]. Moscow: Mysl'.
- Künn-Nelen A. (2016). Does commuting affect health? Health Economics, 25, 984–1004.
- Maltseva E.S., Plakhov A.V. (2014). Influence of pendular labour migration on tax incomes of municipal unions' budget. *Vestnik OrelGIET*, 4(30), 85–89 (in Russian).
- Mkrtchyan N.V. (2007). Statistical sources of information on population migration in Russia. In: Zaionchkovskaya Zh., Molodikova I., Mukomel' V. (Eds.). *Metodologiya i metody izucheniya migratsionnykh protsessov* [Methodology and Methods of Studying Migration Processes]. Moscow: Tsentr migratsionnykh issledovanii (in Russian).
- Mkrtchyan N.V., Florinskaya Yu.F. (2016). Socio-economic effects of labor migration from small towns of Russia. *Voprosy ekonomiki*, 4, 203–123. DOI: 10.32609/0042-8736-2016-4-103-123 (in Russian).
- Mkrtchyan N.V., Florinskaya Yu.F. (2019). Residents of small and mid-size towns of Russia: Labor migration as an alternative to permanent transfer. *Zhurnal Novoi ekonomicheskoi assotsiatsii*, 3, 78–94. DOI: 10.31737/2221-2264-2019-43-3-4 (in Russian).
- Öhman M., Lindgren U. (2003). Who are the long-distance commuters? Patterns and driving forces in Sweden. *Cybergeo. European Journal of Geography*. Available at: https://journals.openedition.org/cybergeo/4118?Lang=en#citedby. DOI: 10.4000/cybergeo.4118
- Pantelaki E., Caspani A.-C., Maggi E. (2024). Impact of home-school commuting mode choice on carbon footprint and sustainable transport policy scenarios. *Case Studies on Transport Policy*, 15, 1–17. DOI: https://doi.org/10.1016/j.cstp.2023.101110
- Perevedentsev V.I. (1975). *Metody izucheniya migratsii naseleniya* [Methods of Studying Population Migration]. Moscow: Nauka.
- Reindl A., Juppe M., Graf Ph., Putz-Egger L.-M., Schildorfer W. The use of gamification to change commuters' mobility behavior: A literature review. In: 7th International GamiFIN Conference 2023 (GamiFIN 2023), April 18–21, 2023, Lapland, Finland.
- Shitova Yu.Yu. (2024). The impact of long-distance commuting on the health of pendulous labor migrants: Review of the literature. *Naselenie i ekonomika*, 8(1), 37–51. DOI: https://doi.org/10.3897/popecon.8.e109997 (in Russian).
- Shitova Yu.Yu., Shitov Yu.A. (2016). Analysis of long-term dynamics of factors determining pendular labor migration in the Moscow region. *Problemy prognozirovaniya=Studies on Russian Economic Development*, 4(157), 151–162 (in Russian).
- Sokolova A.A., Kalachikova O.N. (2023). Commuting in Russia: Scale and consequence. *Narodonaselenie=Population*, 26(3), 16–28. DOI: 10.19181/population.2023.26.3.2 (in Russian).
- Steinsland Ch., Fridstrom L., Madslein A., Minken H. (2018). The climate, economic and equity effects of fuel tax, road toll and commuter tax credit. *Transport Policy*, 72, 225–241. DOI: https://doi.org/10.1016/j. tranpol.2018.04.019

- Taale H., Kalter M.-J. O., Haaijer R., Damen C. (2022). The impact of COVID-19 and policy measures on commuting in the Netherlands. *Case Studies on Transport Policy*, 10(4), 2369–2376. DOI: https://doi.org/10.1016/j.cstp.2022.10.018
- Ungsuchaval T.H., Kantamaturapoj K., Leelahavarong P., Yothasamut J., Ponragdee K., Prawjaeng J., Hadnorntun P.H. (2022). Advocating evidence-informed policy in Thailand: The case of the development of bicycle commuting policy framework. *Case Study on Transport Policy*, 10(3), 1727–1734. DOI: https://doi.org/10.1016/j.cstp.2022.07.003
- Waedhani M., Yoshida T., Malik A. (2020). Third Place Design strategy for commuter in sub-urban (Case study: Outdoor public space in Tangerang city, Indonesia). *Journal of Architectural Design and Urbanism*, 3(1), 29–39. DOI: 10.14710/jadu.v3i1.8886
- Whillans A., Sherlock J., Roberts J., O'Flaherty S., Gavin L., Dykstra H., Daly M. (2021). Nudging the commute: Using behaviorally informed interventions to promote sustainable transportation. *Behavioral Science & Policy*, 7(2), 27–49.
- Zhao P., Lu B., Roo G. (2011). The impact of urban growth on commuting patterns in a restructuring city: Evidence from Beijing. *Papers in Regional Science*, 90(4), 735–755. DOI: https://doi.org/10.1111/j.1435-5957.2010.00343.x
- Zhu P., Tan X, Zhao S., Shi Sh., Wang M. (2022). Land use regulations, transit investment, and commuting preferences. *Land Use Policy*, 122, 1–17. DOI: https://doi.org/10.1016/j.landusepol.2022.106343
- Zimmermann S., Schulz Th., Hein A., Gewald H., Krcmar H. (2024). Motivating change in commuters' mobility behaviour: Digital nudging for public transportation use. *Journal of Decision Systems*, 33, 79–105. DOI: 10.1080/12460125.2023.2198056
- Zulian G., Marando F., Mentaschi L., Alzetta C., Wilk B., Maes J. (2022). Green balance in urban areas as an indicator for policy support: A multi-level application. *One Ecosystem*, 7, e72685, 1–35. DOI: https://doi.org/10.3897/oneeco.7
- Zuo J., Zheng W., Hong J. (2024). Interactions between centrality and commuting costs in a mountainous city: Implications for jobs-housing relationships and land use policies. *Land Use Policy*, 134, 1–12. DOI: https://doi.org/10.1016/j.landusepol.2023.106999

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