Problems of Rental Housing and Living Conditions of Foreign Labour Migrants in Russian Cities (the 2010^s)¹

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The core of the post-Soviet reforms in the housing sector was privatization, and, as a result, the main part of housing passed into private ownership in Russia. However, sale and purchase transactions are made in the emerged housing market, while the proportion of rental leases is small and is largely carried out not through commercial structures but through individuals and is hidden in the "shadow" sector. The article deals with the specifics of conditions of housing rent by foreign labour migrants from individuals, which is one of the important aspects of the study of the Russian real estate market. This study is based on the results of the original sociological survey of 1003 labour migrants conducted by the author in 25 Russian cities in 2017 and 2018. This survey is unique in the quantitative coverage of respondents (1003) and cities (25). In addition, the paper contains exclusive information about the real accommodation conditions of labour immigrants in Russia. The survey results of some cities of the Russian Far East are particularly presented: Vladivostok, Khabarovsk, Ussuriysk, Partizansk, and Dalnerechensk. The focused labour migrants are mainly from Ukraine, Central Asia, Belarus, Caucasian regions; therefore, the questionnaire survey was conducted in Russian language. The following issues are analysed: real housing problems of labour migrants, their living standards and real estate transactions, existence or lack of inequality by region, job and nationalities among immigrants, the policy of solving immigrants' housing problems and its significance.

Keywords: housing problem, utilities, immigrant labour, inequality, housing market, Russia.

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Проблемы аренды жилья и условий проживания иностранных трудовых мигрантов в городах России (2010-е гг.)².

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Стержнем постсоветского реформирования в жилищной сфере стала приватизация, в результате которой основная часть жилья в России перешла в частную собственность. При этом на образовавшемся рынке в основном заключаются сделки купли-продажи, в то время как на аренду приходится лишь небольшая их доля, да и та в значительной степени осуществляется не через коммерческие структуры, а через физических лиц и скрывается в «теневом» секторе. В статье рассматривается специфика условий аренды жилья у частных лиц иностранными трудовыми мигрантами, что является одним из важных аспектов изучения российского рынка недвижимости. Данное исследование основано на результатах оригинального социологического опроса 1003 трудовых мигрантов, проведённого автором в 25 российских городах в 2017 и 2018 гг. Опрос исключителен по количественному охвату респондентов и населённых пунктов. Кроме того, работа содержит уникальные сведения о реальных условиях жизни трудовых иммигрантов в России. Специально представлены результаты исследования в некоторых городах Дальнего Востока России: Владивостоке, Хабаровске, Уссурийске, Партизанске и Дальнереченске. Трудовые мигранты, на которых сфокусировано внимание, в основном прибыли с Украины, из Центральной Азии, Беларуси, кавказских регионов, поэтому опрос проводился на русском языке. Рассмотрены следующие вопросы: реальные жилищные проблемы трудовых мигрантов, их уровень жизни и сделки с недвижимостью; наличие или отсутствие неравенства между иммигрантами по регионам, профессиям и национальностям; политика разрешения жилищных проблем иммигрантов и её значение.

Ключевые слова: жилищная проблема, коммунальные услуги, труд иммигрантов, неравенство, рынок жилья, Россия.

INTRODUCTION

The market reforms that began in Russia in the 1990s have affected all aspects of society. In the housing sector, the starting point for the transformation of property relations became the Laws of the Russian Federation No. 1541-1 "On privatization of housing stock in the Russian Federation"

² Исследование выполнено при финансовой поддержке гранта Японского общества продвижения наук Какенхи, № 15КК0079, № 26504005, № 17К02108, № 19Х01478, совместного проектного исследования 2018 г. и программы «Приглашённый доцент» 2019 г. в Центре Славянско-Евразийских исследований Университета Хоккайдо. Наше социологическое исследование проводилось совместно с профессором С.В. Рязанцевым, директором Института социально-политических исследований РАН, г. Москва.

of July 4, 1991 and No. 4218-1 "On the basics of Federal housing policy" of December 24, 1992. The state continued legal regulation of this sector, adopting in 2004 a package of 27 bills on the development of the affordable housing market and the Housing code of the Russian Federation (No. 188-FL of December 29, 2004). As a result of the long-term free privatization, a key characteristic of the Russian housing stock has become a high share of private home ownership (85% in 2017, official data). However, the purchase-sell housing transaction mainly circulates in the housing market, while rental accounts for only a small share (7% in 2017, official data), meanwhile largely located in the "shadow" sector of the Russian economy [14, p. 14].

Russia's rental housing has two types: public (social) and private ones (by individuals, or by commercial real-estator). The peculiarity of the latter is that the individual homeowner, providing their housing for rent, does not report their income to the tax authorities. Therefore, it is difficult for us to catch the exact size of private rental housing market, especially private individual rental housing circulation. According to experts, in the mid-2010s, about 4 mln families in Russia rented housing on market terms, of which 3.3 mln (i.e. 85.5%) — from individuals [10, p. 7].

In this paper, we focus on the private rental housing, highlighting its specific segment — rental housing by immigrants. Russia is one of countries in the world, which accepts many labor migrants. Their housing transaction is one of important aspects in Russia's real estate market. Therefore, we challenge to approach the fundamental drives of Russia's housing market from the bottom or origin of market.

Another aspect of our unique research is signifying the real living standard for labor immigrants in Russia, with the respect to housing and their daily life. This issue is currently of scientific interest in relation to migrants around the world.

METHODS

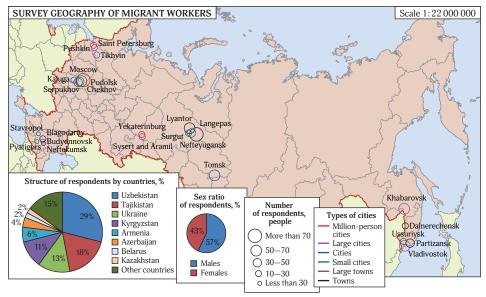
We collected respondent's proportion, according to ranking by Rosstat's immigrant' inflow data for 12 months of 2015. Our total respondents are 1003 people. All of them are legal immigrants with patent and permission for labor in Russia. They are not seasonal migrant labor. The formations of respondents by ethnics are Tadzhikistan (344), Uzbekistan (225), Ukraine (113), Kyrgyzstan (83), Armenia (51), Azerbaijan (42), Belarus (18), Kazakhstan (19), others (108): China, North Korea, Vietnam, Moldova, Mongolia, Turkey, Italy, and Georgia. We try to guarantee the truth of respondent's answer by Russian or compatriots asking them as interviewer.

The formations of respondents by sex: man-79.2%, female -20.8%. Our result is compatible to the proportion of permissions for working and patents in Russia in 2015: man-85% and female -15%. Average age of our questionnaire is 34.6 years old. Our respondents are to 29 years old (37.1%), 30-39 years old (32.2%), 40-49 years old (23.9%), and older than

50 years old (6.7%). The proportion of persons permitted for working and patent in Russia in 2015 is to 29 years old (50.0%), 30-39 years old (26.0%), 40-49 years old (21.0%), and older than 50 years old (6.0%).

We selected for the survey 25 Russian cities (see also the location of map in fig. 1) with population: more than 1 mln — Moscow, Saint Petersburg, Ekaterinburg; 500 thsd to 1 mln — Khabarovsk, Vladivostok; 250 to 500 thsd — Kaluga, Stavropol, Surgut, Tomsk; 100 to 250 thsd — Podolsk, Serpukhov, Pyatigorsk, Nefteyugansk, Ussuriysk; 50 to 100 thsd — Chekhov, Pushkin, Tikhvin, Budyonnovsk, Sysert; less than 50 thsd — Partizansk, Dalnerechensk, Langepas, Lyantor, Blagodarny, and Neftekamsk.

We asked 68 questions concerning not only the housing conditions of immigrants, but also their daily lives and their job: for example, the reason



Million-person cities, 268		Small cities, 1	134	Towns, 230		
Yekaterinburg	17	Pyatigorsk	4	Neftekumsk	10	
Saint Petersburg	30	Ussuriysk	13	Blagodarny	12	
Moscow	221	Nefteyugansk	27	Dalnerechensk	26	
Large cities,	150	Serpukhov 36		Partizansk	40	
Khabarovsk	61	Podolsk	54	Lyantor	70	
Vladivostok	89	Large towns,	103	Langepas	72	
Cities, 11	5	Budyonnovsk	3			
Stavropol	6	Tikhvin	12			
Kaluga	15	Sysert and Aramil	19			
Surgut	41	Pushkin	22			
Tomsk	53	Chekhov	47			

Fig. 1. Survey area. Source: compiled by author

to come to Russia, the kind of job, problems, housing condition, rent fee etc. The term of our questionnaire survey is from June in 2017 to March in 2018. Finally, we collected the total number of respondents — 1003 persons (average age — 34.6 years old, from oldest 65 years old to youngest 18 years old). Such questionnaire survey is just a few and valuable that conducted for lots of respondents and in cities all round Russia. In the previous literature, Institute of Socio-economic Studies of Population (RAS) conducted survey only in Taganrog city of Russia in 2014 [5]. Therefore, our survey has the uniqueness to show the real inside of immigrants to make definitely careful consideration to their human rights and privacy. Especially, even in analytical research by real estator and official statistical service, there is almost no the average monthly rent of rental housing data in all regions of Russia.

Russia's total population is 144 mln population. In the 2000s, the country annually received about 400—500 thsd people from abroad. Table 1 contains the net migration people. It shows the main groups of migrants in Russia by country of exit. Our questionnaire survey also follows that formation. Table 2 shows the increase/decrease of net migration on 25 cities of our survey. 15 of all 25 cities are the regions that net migration increases, except for 10 cities, which located in the Far East and South Federal Districts of Russian Federation.

Table 1
Net migration into Russia (unit: people)

Year Country	2000	2005	2010	2013	2014	2015	2016
Azerbaijan	11 719	3 326	13 389	17 246	12 394	10 660	10 439
Armenia	14 432	6 961	19 192	32 179	24 006	20 533	11 993
Belarus	-3 002	763	1 995	3 717	6 757	4 909	2 127
Kazakhstan	106 990	39 508	20 533	40 156	40 814	34 767	37 130
Kyrgyzstan	13 679	15 119	20 260	19 812	15 259	9 935	11 043
Moldova	9 415	5 783	11 197	20 628	17 574	17 380	14 364
Tadzhikistan	9 885	4 283	17 494	33 649	19 362	11 362	27 288
Uzbekistan	37 724	29 841	23 266	67 266	37 096	-20 668	19 672
Ukraine	39 147	18 120	21 230	36 411	94 370	14 6131	11 8819
Georgia	18 411	4 806	4 786	6 112	4 218	3 309	2 294
Vietnam	149	69	889	1 497	572	1 004	394
Italy	-226	-203	-137	36	21	-109	-16
China	463	-24	1 132	622	1 956	-778	-810
North Korea	-15	0	44	1 132	1 519	-401	1 300
Mongolia	51	-12	25	140	59	38	40
Turkey	60	1	415	1 261	234	-108	312
Total	213 610	107 432	158 078	295 859	280 328	245 384	261 948

Source: authors' calculation from Rosstat website.

Table 2
Coefficient of net migration rate, per 1000 population in 2016*

Coefficient value	Regions in Russia, which 25 cities of our survey are located
More than +4	Moscow, Podolsk, Chekhov, Serpukhov, Kaluga, St. Petersburg, Pushkin, Tikhvin
+1 to +4	Surgut, Nefteyugansk, Langepas, Lyantor
-1 to +1	Ekaterinburg, Sysert, Tomsk
-4 to -1	Khabarovsk, Vladivostok, Ussuriysk, Partizansk, Dalnerechensk, Stavropol, Blagodarny, Pyatigorsk, Budyonnovsk, Neftekamsk
Less than -4	None

^{*} Coefficient of net migration rate = [(Immigrate – Emigrate) / Regional Population] *1000. *Source:* compiled by author from the table 1 in [5, p. 94].

Note, however, that table 1 in [5, p. 94] shows the level of federal regions (so called in Russian, oblast, krai, and republic that form the Russian Federation), which these 25 cities included in, not the level of city.

LITERATURE REVIEW

In the previous literature, they mainly have discussed the governance aspects against immigrant inflow in the urban districts, especially in the city of Moscow. First, the issue is the segregation of immigrant districts and the correlation between urban enlargement and immigration. One of reasons is the confliction between immigrants and local residents. Another reason is a reflection of immigrants' inflow into the regional housing market.

Now we can discuss a hypothesis. Does immigrants' inflow reflect housing price or rental fee, giving a pressure downward or upward? The previous literatures divided into two views. On the one hand, ethnic and cultural conflicts in immigrant's settlements bring downward housing price in the high-density district of immigrants [2; 3; 4; 6; 8; 16; 17]. Increasing of immigrant from Central Asia and Caucasian reflected the housing price level of their residential districts in Moscow. The authors had researched the case of Moscow city.

In some geographer and demographer's previous literature [3; 4; 8; 18; 20], they researched the urban space pattern of immigrant labor settlements and their life culture, where do they live in Moscow. Especially, since 1990's, increasing immigrant inflow into Moscow have brought some phenomenon of urban Moscow: 1) the downward pressure of housing price in some districts of Moscow, 2) the urban agglomeration and enlargement, 3) high density of population, 4) ethnic and cultural conflict between residents and immigrants. To sum them up simply, they consider the urban space management connected with migration administration. In fact, it is difficult to segregate immigrant

residents in Moscow and Russian regions. Therefore, their implicit message is not to integrate but to control immigrants, beside it, to do segregate them if possible in Russia.

On the other hand, I. Kashnitsky and M. Gunko [19] pointed econometrically that we could not find the correlation between housing prices and intensities of in-migration at the level of city districts of Moscow. First, it is difficult for us to prove it econometrically that increasing of immigrant inflow into some of city districts would reflect on the housing price or rental fee level of their residential districts in Moscow. The level of price and rental fee affect complicatedly by multiple reasons: population movement, business cycle, interest rate, the volume of new housing construction, and the city's urban development plan etc.

In addition to it, L. Ashkenazi and M. Vekshtein [2] show the fact that the lender prefers to lend their apartment for only Russian to prevent some ethnic confliction from Central Asia and Caucasus and trouble caused by such confliction. This phenomenon shows another aspect of reflects about the correlation between housing market and immigrant inflow. It might bring the segregation of housing market, especially rental housing market in Russia. Immigrants' inflow does not give a direct reflection to the housing rental-selling price but it creates another segment of housing market in Russia. There is "divided market" of housing between foreign business-persons, Russians and labor immigrants.

Fig. 2 is map of housing prices in the Russian Federation according to Rosstat [11]. On it, three solid lined circles are the regions where the housing price level is higher than Federal average (Federal average — 46.4 thsd per sq. m). As far as we go to the case of Moscow and Leningrad regions, it seems that

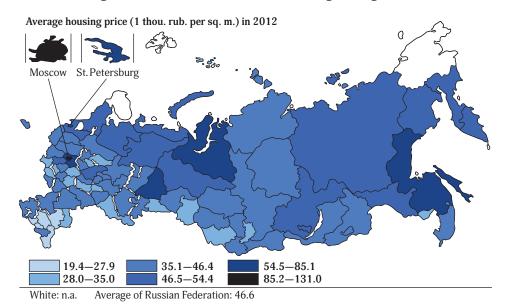


Fig. 2. Average housing price (1 thsd rub. per sq. m) in 2012. *Source*: [11; 24]

immigrant inflow might give a pressure upward to housing price. On the other hand, one dotted lined circle is region that has lower price than average. This region located in Caucasus area continues to decrease their population and net migration. Therefore, it seems that immigration outflow might give a pressure downward to housing price. We can consider that there is the correlation between immigration inflow and the regional housing price in these regions.

However, on the level of Russian Federation, we cannot make a clear that labor immigrants could reflect housing price or not. In fig. 2, one solid lined region located in the Far East is the region that we know well in Russia as the population continues to decrease in this region (see also Khabarovsk, Vladivostok, Ussuriysk, Partizansk, and Dalnerechensk in table 2). Nevertheless, their housing price is higher than average. It is difficult for us to prove the statistically significant correlation between immigrant inflow and the housing price at any other regions all over the Russian Federation. We would like to try to establish the relation between the immigrant inflow and housing market by questionnaire survey. For this purpose, we introduce our original idea to analyze the relation.

We have the original image of housing market in Russia. That is "multi-layered structure" of it (fig. 3). Russia's housing market has some stratum according to categorized customers' demand: elite class, business class, economy class, and rental apartment, studio, dormitory, dacha, container etc. The bottom is for labor migrants' housing circulation at the purpose of using temporal residence according to their level of rental fee. We regard their transaction of housing as the nature of origin of market. Their deals mainly connect through "word of mouth" between individuals, relatives and acquaintance. By climbing up the stratum, there deals circulate through real-estator. In addition, their

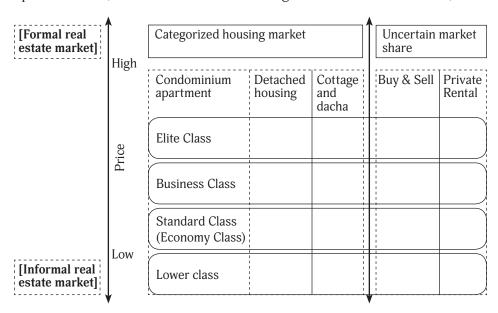


Fig. 3. Images of multi-layered structure of Russia's housing market. *Source*: compiled by author and [21; 23]

housing use is regular settlement and their transaction is mainly selling and buying. It seems that the mobility and volume of housing deals at the bottom are higher and larger than the one of upper side. The growth of the rental housing market mainly circulates in the lower part of the housing market. For the most part, it depends on demand from labor immigrants in Russia. That might reflect to all of Russia's housing market dynamics through the price discrimination. We will try to confirm the bottom side of this our original image and idea with our questionnaire survey.

Here, we add another academic topic — "price discrimination" on micro economic theory in this discussion. From the real estator's website of Moscow (for example, TSIAN [15]), we can see that housing lenders provide two types price for foreigners or use the constraint condition depending on the customers. The price level on the site is higher than the average in Moscow. In actual, the author had the same experience during finding apartment at Moscow and Saint Petersburg in 2017.

Quite often, the lender set such constraint condition: "only for Russian" or "except for Central Asian" etc. L. Ashkenazi and M. Vekshtein [2] discuss this fact directly. It seems that there is segregation of rental housing market in Russia and some problems related in labor immigrants under urbanization. In addition, this transaction can become the hurdle for foreigner and immigrant labor to find the rental housing.

Beside the condition, from author's investigation, the price level was not stable rigidly. It could negotiate depending on the nationality. Sometimes, the lender uses the different price depending on the customers. When foreigner (not Russian language speaker) asked to the lender by phone, the price was the same as on the website. Even with negotiation subjected to rent for longer days, price for foreigner did not depreciate to the half level of website price, but only about 20% price down. However, when Russian asked to the lender by phone, the price level was initially discounted by half without negotiation. The half level of website price is the almost average level in the analyst's data [7]. From author's investigation, these prices were about double price, not only located in the most center of Moscow but also in other area of Moscow. The price for foreigner is higher, sometimes twice higher than the price level for Russian.

This pricing makes us remind "price discrimination" and "personalized pricing" in the micro economic theory. Now this topic is discussed about the relevance of e-commerce and the shopping though the internet [13; 22]. In real life, we can see the similar pricing when same goods are sold with different price in the different shop: for example, on the one hand, a same yogurt drink is sold with 38 rub. in store A. On the other hand, it is sold with 51 rub. in store B (expensive store). We also confronted this pricing on the apartment transaction in Moscow. Provider sets the different price for the same rental housing: (A) for foreign business person-labor immigrant — expensive price (higher than average), (B) for Russian — average price, (C) for Central Asian and other labor immigrant — don't lend or lower price than average.

Sometimes their price is not visible. In micro economic theory, we consider the reason why price elasticity of demand for housing is different between foreign business person immigrant (low) and non-skilled immigrant (high). We will try to confirm our original image and idea "as multi-layered stratum" of housing market in Russia from the viewpoint of immigrants' housing with our questionnaire survey.

RESULTS

Our original questionnaire survey uniquely shows a lot of real immigrant's housing. In this paper, we focus on the rent fee level of immigrant's rental housing and their real living space for the sake of a space constraint. The average level of one room apartment's rental fee on the real estate website TSIAN-Moscow [15] (tentative calculation by author) is average 16 416 rub., median — 16 000 rub., min — 5000 rub., max — 38 000 rub. According to one of our surveys average level is 8527 rub., median — 6000 rub., min — 0 rub., max — 35 000 rub. Our outcome is very lower than market price. All our outcome of housing average fee is shown in table 3. Now average monthly rent fee in Moscow by real-estator is the followings: economy class (standard) built in the era of USSR one room apartment — 30 thsd rub.; two rooms apartment — about 37.5 thsd rub.; three rooms apartment — 47 thsd rub. [9]. These price levels are for Russian people, not for foreigners and labor migrants. We really find low level of immigrant rent and see the bottom aspect of housing market by our questionnaire survey.

The comparison between our results of rent fee in 25 cities of Russia and average by author's calculation using the data of popular rental housing website in Russia "Avito.ru" [1], shows that the rent level of immigrant housing is much lower than the average level on the website in all 25 cities. Our result proves that immigrants' rental housing fee and transactions are located on the bottom of housing market in Russia. In addition, it is also found that Russia's rental housing market has one different segment for immigrants. According table 3, we can see another trend. Usually the rent level of center city is highest of their neighbor regions. Our results show not only the usual figure, but also another fact like "donuts phenomenon of urban", that is enlargement of urban with the respect to rental fee level. The rent level in Serpukhov city is higher than in Moscow, which is 100 km far from the center Moscow region. The level of Tikhvin city is also high as well as the case of Serpukhov city. Average rent per sq. m in Tikhvin is even higher than in St. Petersburg, which is 220 km far from the center city of Leningrad region. The same trend similarly shows in the Stavropol and Surgut region. The rent level of some cities, which locate far from center city, is high, compared with the level of center.

We can show the actual labor immigrant's housing standard in Far East Russian cities (table 4). Except for Khabarovsk, their housing standard is very low, compared with federal average by Rosstat (table 5). Our survey newly and

Table 3
Average housing rental fee by region

Distance	City	Ave. rent (rub.)	Ave. rent per sq. m (rub.)
center	Moscow	8 527.40	273.5
40km	Podolsk	5 350.00	160.7
80km	Chekhov	5 877.55	206.3
100km	Serpukhov	10 875.00	311.5
188km	Kaluga	6 533.33	229.0
center	Vladivostok	8 086.90	297.7
100km	Ussuriysk	5 946.15	201.8
1 70km	Partizansk	5 690.00	261.2
400km	Dalnerechensk	5 148.00	204.6
center	Stavropol	5 911.76	251.6
116km	Blagodarny	6 615.38	147.5
144km	Pyatigorsk	6 750.00	270.0
173km	Budyonnovsk	9 300.00	244.7
240km	Neftekumsk	4 300.00	184.5
center	St. Petersburg	9 250.00	238.8
24km	Pushkin	5 857.14	210.0
220km	Tikhvin	9 100.00	260.6
center	Ekaterinburg	8 176.25	309.6
50km	Sysert	5 438.89	132.1
center	Surgut	5 720.45	252.2
46km	Nefteyugansk	7 955.56	322.5
96km	Langepas	5 450.00	178.3
77km	Lyantor	5 738.10	143.7
	Khabarovsk	16 297.62	436.7
	Tomsk	8 360.48	265.0
	Total ave.	7 583.05	242.3

Source: author's calculation by results of our questionnaire survey.

concretely pointed the existence of two-step movement in 25 cities of Russia. Immigrants' rental housing fee is very low than the average of official data. Our results of the chi-square test of equivalence by regions are the following: Housing area — Chi2 = 3597.181, p = 0.000, Cramer V = 0.390; Housing rental fee — Chi2 = 3894.245, p = 0.000, Cramer V = 0.412; and Number of Cohabitant — Chi2 = 662.147, p = 0.000, Cramer V = 0.237. There are statistically significant regional differences, especially in the average level of housing rental fee. Khabarovsk and Vladivostok's housing rent fee per capita is expensive and comparable with Moscow. The level of rent fee in Khabarovsk and Vladivostok may be heavy burden for immigrants.

Table 4
Rental fee, number of cohabitants and area for immigrants housing:
the case of cities in Russian Far East and Moscow

City	Average rental fee per capita (rub.)	Average rental fee per apartment (rub.)	Average number of cohabitants (number)	Average area (sq. m)	Rental fee per sq. m (rub.)	Average area per capita (sq. m)
Vladivostok	8 086.90	24 073.41	3.98	28.16	854.92	7.1
Khabarovsk	16 297.62	39 388.33	3.42	40.23	978.98	11.8
Dalnerechensk	5 148.00	12 014.33	3.33	26.21	458.42	7.9
Partizansk	5 690.00	15 268.54	3.68	21.78	701.02	5.9
Ussuriysk	5 946.15	19 213.88	4.23	29.46	652.17	7.0
Moscow	8 527.40	30 123.93	4.53	31.18	966.14	6.9
Total	7 583.05	21 955.05	3.89	31.83	689.75	8.2

Source: results of author's survey.

 ${\it Table~5}$ Comparison to average of Russian Federation by Rosstat

	Our survey	Rosstat RF
Ave. sq. m	31.3	54.5
Ave. sq. m per capita	10.4	24.4

Source: [12] and results of author's survey.

 ${\it Table~6}$ Equipped level of housing utility for immigrants in the Russian Far East, %

Characte- ristic	Water	Sewage	Heating	Gas	Hot water	Electricity	Bath & toilet	Common bathroom beside inside of room	Kitchen	Common kitchen	Electric or gas cooking range
Vladivostok	85.9	85.9	82.4	8.2	75.3	100.0	84.7	12.9	81.2	9.4	88.2
Khabarovsk	60.0	60.0	80.0	56.0	62.0	98.0	69.4	26.5	74.0	22.0	83.7
Dalnerechensk	60.0	60.0	68.0	16.0	48.0	100.0	41.7	45.8	48.0	24.0	56.0
Partizansk	36.6	36.6	56.1	9.8	36.6	100.0	36.6	63.4	32.5	45.0	36.6
Ussuriysk	84.6	84.6	84.6	7.7	69.2	84.6	46.2	53.8	53.8	38.5	69.2
Moscow	68.2	58.4	94.4	28.8	91.0	99.1	73.0	26.6	71.7	25.8	88.4
Total	73.6	61.7	87.0	29.5	69.6	98.6	65.6	32.3	65.5	29.9	76.1

Source: results of author's survey.

Table 6 shows our results of equipped level of housing utilities for immigrants. Our results of the chi-square test of equivalence by regions are the following. Water: Chi2 = 157.794, p = 0.000, Cramer V = 0.397, Sewage: Chi2 = 250.619, p = 0.000, Cramer V = 0.500, Heating: Chi2 = 118.357, p = 0.000, Cramer V = 0.344, Gas: Chi2 = 368.946, p = 0.000, Cramer V = 0.607, Hot water: Chi2 = 300.507, p = 0.000, Cramer V = 0.548, Electricity: Chi2 = 65.863, p = 0.000, Cramer V = 0.256, Bath and toilet: Chi2 = 364.146, p = 0.000, Cramer V = 0.301, Kitchen: Chi2 = 262.920, p = 0.000, Cramer V = 0.363, Electric or Gas Cooking range: Chi2 = 269.402, p = 0.000, Cramer V = 0.519. There are statistically significant regional differences. Particularly sewage, gas, hot water, and electric or gas cooking ranges have strong regional difference. The equipped level in Partizansk is lower than in other Far Eastern regions. However even in Partizansk, immigrants do not live in rural area. Most of our surveyed immigrants live in the center of city or urban area.

We plotted immigrant respondents' living place and working place in following 5 maps (fig. 4, 5, 6, 7 and 8) Average commuting time to work is 29.13 minutes in Vladivostok, 23.56 minutes in Khabarovsk, 13.56 minutes in Dalnerechensk, 28.30 minutes in Partizansk, 30.00 minutes in Ussuriysk and 25.29 minutes in Total. Immigrants' residents and local residents do not separate in the city. Despite of lack of location difference between immigrant and local residents, it is problem why immigrants' housing condition is lower than the targeted goal or average level of Russian Federation.

 ${\it Table~7}$ Immigrants' dissatisfaction for housing conditions in the Russian Far East, %

Characte- ristic City	Small area, cramped room	Many people cohabitant	Darkness	Poor ventilated room	Noisy street	Non repair	Coldness	Dirty	Expensive rent fee
Vladivostok	37.6	38.8	15.3	5.9	9.4	10.6	17.6	4.7	1.2
Khabarovsk	31.3	12.5	14.0	8.3	2.1	20.0	18.0	6.0	40.0
Dalnerechensk	33.3	29.2	24.0	25.0	29.2	36.0	44.0	32.0	8.0
Partizansk	51.3	41.0	12.2	12.8	10.3	36.6	26.8	39.0	4.9
Ussuriysk	53.8	38.5	30.8	30.8	15.4	61.5	23.1	7.7	0.0
Moscow	30.3	25.5	4.3	6.5	5.2	24.0	3.4	1.7	30.5
Total	30.7	17.4	10.2	10.3	11.6	23.6	10.0	4.3	13.1

Source: results of author's survey.

Here is immigrants' dissatisfaction for housing conditions in table 7. The main problem of their housing conditions is narrow space by many co-habitants. And small populated cities Dalnerechensk, Partizansk, and Ussuriysk have dissatisfactions for housing: small space, many people cohabitant, poor ventilated, not repaired, coldness and dirty. Our results of the chi-square

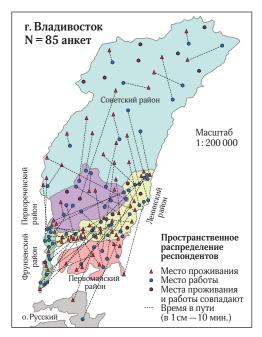


Fig. 4. Working place and living place in Vladivostok.

Source: compiled by author



Fig. 5. Working place and living place in Khabarovsk.

Source: compiled by author



Fig. 6. Working place and living place in Dalnerechensk. Source: compiled by author



Fig. 7. Working place and living place in Partizansk. *Source:* compiled by author



Fig. 8. Working place and living place in Ussuriysk. *Source:* compiled by author

test of equivalence by regions are the following. Small space: Chi2 = 96.312, p = 0.000, Cramer V = 0.316, Many people cohabitants: Chi2 = 151.089, p = 0.000, Cramer V = 0.280, Darkness: Chi2 = 90.530, p = 0.000, Cramer V = 0.306, Noisy street: Chi2 = 80.034, p = 0.000, Cramer V = 0.288, Non repair: Chi2 = 86.995, p = 0.000, Cramer V = 0.295, Coldness: Chi2 = 105.306, p = 0.000, Cramer V = 0.324, Dirty: Chi2 = 193.299, p = 0.000, Cramer V = 0.439, Expensive rent fee: Chi2 = 163.772, p = 0.000, Cramer V = 0.404. In Khabarovsk, many immigrants are significantly dissatisfied with expensive rent fee.

Table 8 Housing conditions by nationalities

Nationality	Average area (sq. m)	Average rent fee per capita (rub.)	Average rent fee per household (rub.)	Average number of cohabitant (N)
Tajikistan	30.56	6 355.71	24 628.39	3.88
Uzbekistan	27.35	6 523.80	27 406.51	4.20
Ukraine	33.27	10 453.61	36 006.87	3.44
Kirgiz	27.20	9 067.90	39 445.37	4.35
Armenia	42.58	8 724.63	31 505.61	3.61
Azerbaijan	51.73	8 666.67	28 816.67	3.33
Belorus	34.20	8 791.67	44 544.44	5.07
Kazakhstan	30.43	13 830.77	44 684.02	3.23
Moldavia	28.52	7 150.00	31 065.52	4.34
Vietnam	37.73	16 318.18	68 239.67	4.18
North Korea	16.89	6 000.00	7 333.33	1.22
China	42.86	5 924.14	29 620.69	5.00
Total	31.83	7 583.05	29 535.21	3.89

Source: results of author's survey.

How large disparity of housing conditions do the tenants have depending on the nationality and job? Our calculation in the survey is shown in tables 8 and 9. Here is the difference of rental fee and housing area by Immigrants' nationality (table 8). Uzbeks, Kyrgyz, Azerbaijanis, North Koreans have a statistically significant difference by average area of housing. Ukrainian, Kazakh, Chinese, and Vietnamese have a statistically significant difference by average rent fee per capita. North Koreans, Chinese, and Belarusians have a statistically significant difference by average number of cohabitants. Our results of the chisquare test of equivalence by nationalities are the following. Housing area: $\text{Chi2} = 4080.622, \ p = 0.000, \ \text{Cramer V} = 0.366, \ \text{Rent fee: Chi2} = 3289.383, \\ p = 0.000, \ \text{Cramer V} = 0.328, \ \text{Number of cohabitant: Chi2} = 590.446, \\ p = 0.000, \ \text{Cramer V} = 0.224.$

 ${\it Table~9}$ Housing conditions by job

	Average rent fee per capita (rub.)	Average area (sq. m)	Average number of cohabitant
Construction	6053.9	30.5	4.0
Housing Utilities	6517.6	27.2	3.8
Trade	9029.8	34.7	3.9
Restaurant, Café, etc.	8342.0	35.6	3.8
Transport	7398.9	30.7	4.1
Agriculture	2562.5	22.1	4.8
House keeper	4745.9	27.2	3.3
Others	9197.4	32.2	3.7
Total	7583.1	31.8	3.9

Source: results of author's survey.

Table 9 shows statistically differences of immigrants' housing conditions by industry. Housing rent fee: Chi2 = 831.770, p = 0.000, Cramer's V = 0.352, Housing area: Chi2 = 887.905, p = 0.000, Cramer's V = 0.359, Number of cohabitant: Chi2 = 126.980, p = 0.002, Cramer's V = 0.136. Labor immigrants in agriculture have cheaper rents and smaller areas compared to those employed in other industries. On the other hand, labor immigrants engaged in housing utilities face high rents and small space. Their housing conditions may be lower than those employed in other industries.

CONCLUSION REMARKS

Immigrants' housing space is very small than Russian Federation's average and goal. The quality problems are a narrow space and non-repaired room. Most labor immigrants live with three persons who are not family members. Their housing is not enough for them to rest. If we approach to improve their housing environment, we can sustainably increase labor productivity. Even depending on their rental term, we should consider the improvement of their housing environment. This problem is very important, as its solution will contribute to the adaptation of immigrants to local conditions and to prevention of conflicts. In addition, the market segmentation for immigrants exists in the Russian housing market. Their level of housing rent is very low, except for their number of cohabitants. It mightily shows the multi-layered structure of this market. In order to improve immigrants housing conditions, we need to make a housing policy and regulation of housing conditions. In addition, we should organize private rental housing market more openly and clearly through private agency.

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