

The Impact of Labor Productivity on the Standard of Living of the Population of Russian Regions in the Context of the Implementation of the National Project "Labor Productivity and Employment Support"

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Abstract: The study is devoted to assessing the impact of labor productivity on the standard of living of the population of Russian regions. The authors theoretically substantiated and empirically confirmed using statistical data that labor productivity in the region directly determines the income level of the economically active population and indirectly affects the income of non-working citizens living in the region. The income of the population is the main indicator of the standard of living, which directly links it with labor productivity. The work notes the significant role of the national project "Labor productivity and employment support", which has been implemented in the Russian Federation since 2019, and also provides recommendations for improving the effectiveness of the activities.

1 INTRODUCTION

According to the Organization for Economic Cooperation and Development (OECD, 2019), the level of labor productivity in Russia in 2019 was \$ 30.5 per hour. Despite the progressive growth over the past five years, this indicator is still significantly lower than the level of labor productivity in the Eurozone (\$ 66.8 per hour), as well as in a number of countries of the former USSR and Eastern Europe: Slovenia – \$ 51.3; Lithuania – \$ 47.8; Czech Republic – \$ 47.4; Estonia – \$ 45.8; Poland – \$ 43.9; Slovakia – 42.9; Latvia – \$ 41.1; Hungary – \$ 40.9 per hour. Low productivity index negatively affects the development of the country's economy and is reflected in the standard of living and well-being of the population.

In accordance with the Passport of the National Project "Labor productivity and employment support", implemented in the Russian Federation since 2019, labor productivity is a determinant of the standard of living of the population. On the one hand, this thesis is obvious, because highly productive work

should be well paid, and the income of the employed population is the most important characteristic of the standard of living. Also, the presence of highly efficient enterprises on the territory of the region increases the opportunities for the implementation of social programs and additional support for citizens with low income through tax and other deductions.

On the other hand, increasing labor productivity is one of the commercial tasks of business and does not always correspond to the public interests presented by the state and the population. Job cuts, even with the aim of increasing labor productivity, are not always assessed positively.

Nevertheless, at all levels of the Russian state there is an understanding that increasing labor productivity is one of the main imperatives for the development of the economy of the country and its regions.

The purpose of the study is to investigate the impact of labor productivity on the standard of living in Russian regions in the context of the implementation of the National Project "Labor productivity and employment support".

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The objects of the study are the regions of the Russian Federation.

2 METHODOLOGY

The standard of living of the population of the region is a complex multifactorial socio-economic category that characterizes the provision of a person living in the region with economic benefits to meet his material and spiritual needs. The standard of living of the population is the result of the functioning of the entire socio-economic system of the territory. The higher its efficiency, the more economic resources and created benefits become available to the population.

Until now, no unambiguous and recognized set of indicators has been formed to assess the standard of living of the population of the territory. The most widespread system of indicators for assessing the progress of economic reform in the republics of the Russian Federation, territories, regions, autonomous formations, cities of Moscow and St. Petersburg, is the system approved by the Order of the Government of the Russian Federation of 03/15/1993 N 426-r. In this document, the indicators of living standards are devoted to subsection 10.3 (figure 1). Seven of the twelve indicators (Alexandrova, 2020; Molokanov, 2019; Simachev et al., 2020; Chernysheva and Il'yanov, 2019) are associated with wages and average per capita incomes of the region's population, which confirms the thesis that the standard of living directly depends on what income the economy of the territory receives, how many goods, jobs, services it produces.

The Federal Service for State Statistics of the Russian Federation (Rosstat) is currently forming the section "Living standards" from the following blocks of indicators:

- income, expenses and savings of the population;
- social security and social assistance;
- distribution of income of the population;
- living wage;
- the level of poverty;
- income, expenses and living conditions of households;
- consumer expectations of the population.

In the methods of Rosstat, the bulk of statistical data on the standard of living of the population is also, to one degree or another, characterized by the level of per capita income and their subsequent use. According to Rosstat data on the structure of monetary incomes of the population of the Russian

Federation by sources of income for 2020, the share of labor income was 63.7% (wages of employees – 58.5%, income from entrepreneurial and other production activities – 5.2%). The rest of 36.3% was formed at the expense of social payments – 20.8%, income from property – 4.4% and other cash receipts – 11.1% (Rosstat). Not being able to analyze the structure of other monetary receipts, but being sure that a large part of them is formed by the income of self-employed and other forms of labor activity that did not fall into official statistics, we can say that at least two-thirds of the volume of monetary income of the population is the direct results of their labor activities.

By adjusting the total size of the region's income by the cost of material resources consumed by the economy, we will receive the added value or gross regional product (GRP). And although there are many publications in scientific periodicals that cast doubt on the direct impact of GDP (GRP) on the standard of living of the population (Aseev et al., 2019; Molokanov, 2019), the main part in the structure of value added is wages with deductions for social needs. Thus, the level of GRP and average wages are directly dependent on each other. The influence of GRP on the standard of living of the non-working population is indirect, but it is also significant. We find that the most important factor determining the standard of living of the population of the territory is the GRP per capita of the region. The possibilities of the regional economy to finance the wages of the economically active population (labor force) and providing social support to non-working citizens through fiscal mechanisms depend on it.

Taking into account the fact that the volume of GRP is the result of the use of the labor force involved in the economy of the region, the issues of labor productivity as the main indicator of efficiency come to the fore.

Within the framework of the National Project "Labor productivity and employment support", implemented in the Russian Federation since 2019, labor productivity is a determinant of the standard of living of the population and is considered as the ratio of value added to the number of employees. The added value on a national scale takes the form of gross domestic product (GDP), at the level of a constituent entity of the Russian Federation - gross regional product (GRP), and at the level of an individual enterprise as the sum of profit from the sale of goods, performance of work or provision of services, remuneration of employees, and insurance premiums, as well as property tax included in the cost.

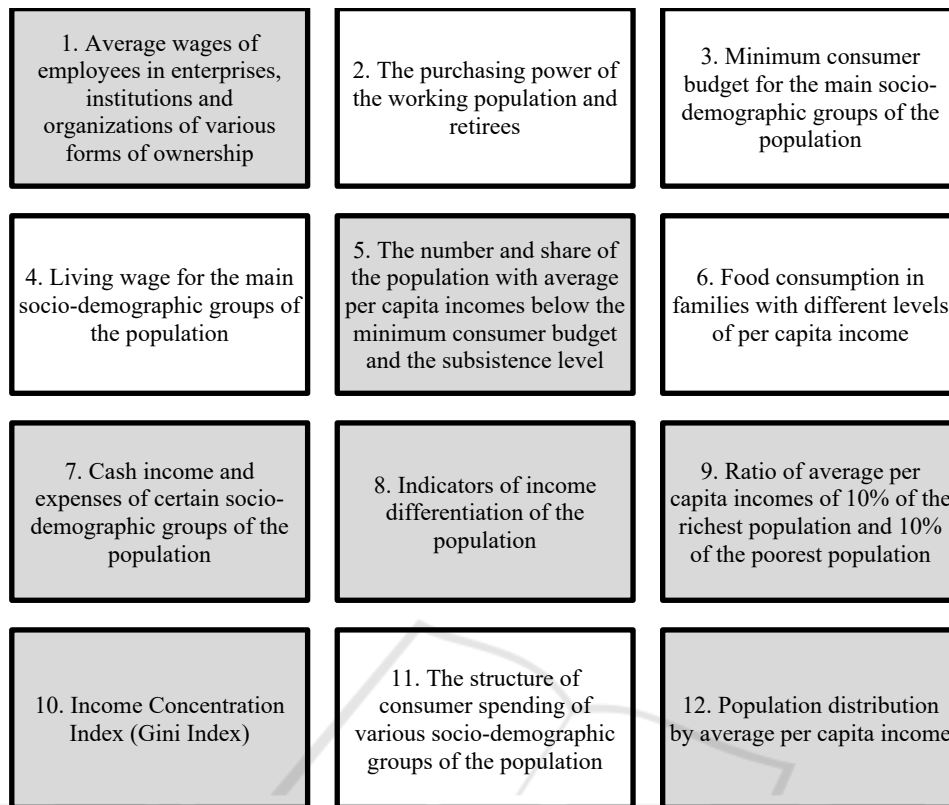


Figure 1: Indicators of the standard of living of the population of the constituent entities of the Russian Federation, approved by the order of the Government of the Russian Federation of 03/15/1993 N 426-r.

In accordance with the applied method of calculating value added and taking into account the fact that in its structure the dominant part is the wages of workers with deductions for social needs, the objective relationship of labor productivity and the standard of living of the population becomes clear. The higher labor productivity, the more funds the employer can use to finance the labor activity of personnel. The resulting profit with its capitalization in the assets of companies increases the capital-labor ratio and, as a result, creates the preconditions for increasing productivity.

Issues of the ratio of labor productivity and living standards of the population continue to arouse the interest of scientists and practitioners, such as Elovikov & Petrunina (2004), Zaitsev (2014), Chemidova (2019). The study of Chernysheva & Il'yanov (2019) is devoted to identifying possible ways to increase the level of labor productivity in the Russian Federation to ensure sustainable development of the country. Zaitsev (2014) believes that GDP per capita and labor productivity are very close indicators, the dynamics of changes in which is unidirectional, but has different intensity during periods of economic recession and recovery. The

design mechanisms for managing the growth of labor productivity in a specific region are considered in the studies of Alexandrova (2020).

In the foreign economic and specialized literature, the works of Broadberry & Burhop (2010), Backman & Gainsbrugh (1949), Djido & Shiferaw (2018), Fedulova et al. (2019), Gibson & Shrader (2018), Hatcher (2018), Samargandi (2018), Trenovski & Kozeski (2020) are devoted to the study of the relationship between labor productivity and the standard of living of the population.

Summarizing the studies of Russian and foreign scholars, as well as taking into account the initial experience of the regions in the implementation of the National Project "Labor productivity and employment support" in 2019-2020 (report of the Accounts Chamber of the Russian Federation), we highlight the following features of the impact of labor productivity on the standard of living in Russian regions:

1. The growth of labor productivity increases the efficiency of economic activity of economic entities, which creates opportunities for increasing the wages of workers, directing profits to re-equipping jobs and, as a result, an increase in the capital-labor ratio.

However, the owner of a commercial organization or an entrepreneur may not do this, maximizing the amount of net profit distributed among the founders. In order for business to contribute to an increase in the living standards of the population in the regions, systemic measures should be taken to promote the interest of campaigns in the creation of new highly productive jobs. In particular, such a system of measures is the ongoing National Project “Labor productivity and employment support”.

2. An increase in labor productivity can occur in both extensive and intensive forms. The decline in the number of employed people has a negative impact on the average per capita income and the average standard of living of the population, but, based on the calculation methodology, it can have a positive effect on the calculated values of labor productivity. This extensive form does not lead to an increase in the region's GRP both in absolute terms and per capita. The use of such a model for increasing labor productivity on the part of business should not meet with support from the state and regional authorities.

The replacement of low-productivity jobs with high-productivity jobs, which ensures an increase in the volume of production (work, services), should be recognized as an intensive form of increasing labor productivity. This model is more costly than the first, requires capital investments, but ultimately brings a higher economic result to both the enterprise and the region. In this case, regional authorities and support institutions can and should use all mechanisms of economic assistance to business. Here we can single out financing of programs for advanced training of retraining of personnel, and compensation for a part of the interest rate on a loan for the re-equipment of production, and assistance in obtaining new large orders, including export ones.

3. A high level of labor productivity has a positive effect on labor migration and the level of professional training of the region's population. Indeed, the availability of high-performance vacancies at regional enterprises places high demands on the level of training of specialists. And this contributes to the development of educational institutions in the region and, as a result, has a positive effect on the standard of living.

To confirm the impact of labor productivity on the standard of living of the population in the regions of the Russian Federation, an analysis of statistical data was carried out, the results of which are presented in the next section.

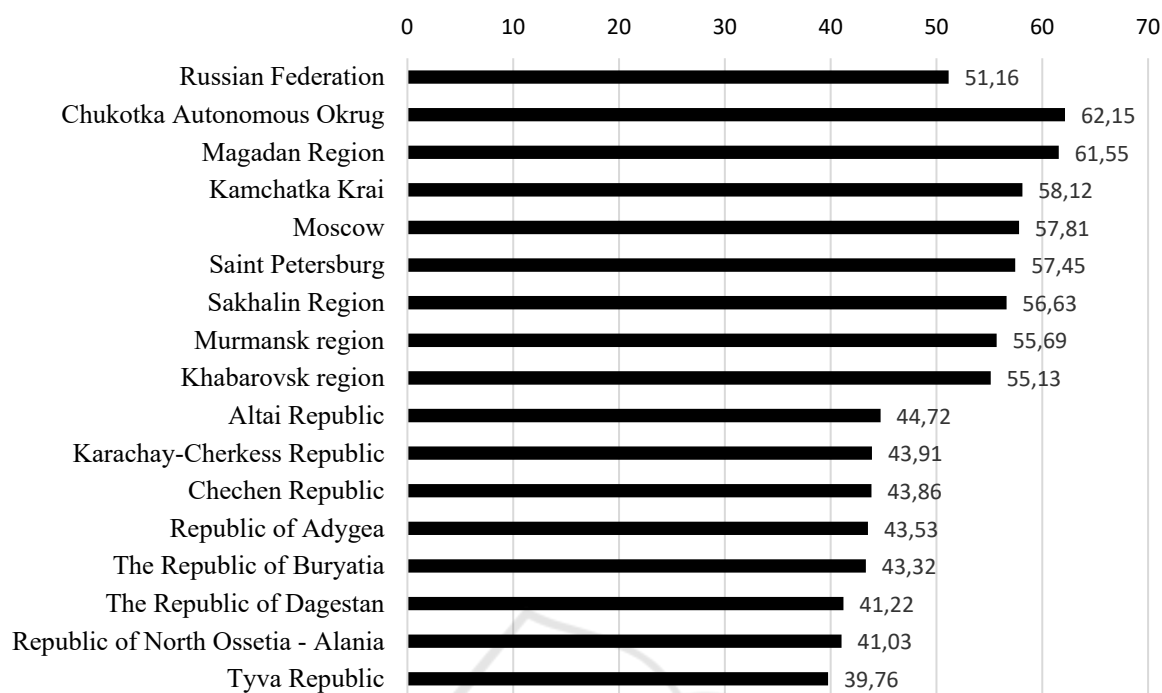
3 RESULTS

The Russian Federation is characterized by a high degree of differentiation of the level of socio-economic development of its regions. And if the social security of citizens throughout the territory within the framework of federal guarantees and programs being implemented is approximately comparable, then the regional opportunities for supporting the population differ significantly. The same applies to the level of development of the real sector of the economy.

Thus, in various constituent entities of the Russian Federation, the impact of labor productivity on the standard of living of the population will be noticeably different. This is primarily due to the structure and economic activity of the population (Figure 2). So, on average in Russia in 2020, according to Rosstat, the share of the labor force (74,922.7 thousand people) in the resident population (146459.8 thousand people) was 51.16%. In most constituent entities of the Russian Federation, the value of this indicator is comparable to the average Russian level and fluctuates in the range from 45 to 55%, which indicates a commensurate level of influence of the growth of labor productivity on the standard of living of the population with some assumptions.

Sixteen regions of the country, the data of which are presented in Figure 2, were not included in this average range. Eight constituent entities of the Russian Federation have a percentage of the economically active population above 55%: from the level of the Khabarovsk Territory – 55.13% to a maximum value of 62.15% in the Chukotka Autonomous Okrug. In these regions, the impact of growth in labor productivity on the standard of living of the population will be greatest due to the following circumstances:

- the labor force itself, being a part of the population of the region, to the greatest extent feels the effects of the growth of labor productivity on the quality of its life. These effects are manifested in an increase in the average wage included in the added value, an increase in the level of equipping of workplaces due to an increase in the capital-labor ratio of labor, as well as an improvement in social security both due to an increase in compulsory social contributions and due to the support of employees from the employer;
- an insignificant share of the economically inactive population (for example, in the Chukotka Autonomous Okrug 37.85%) will create the least social burden on the regional



Source: Rosstat, calculated by the authors.

Figure 2: The share of the economically active population (labor force) in the resident population of the regions of the Russian Federation in 2020, %.

and municipal budgets. It turns out that the aggregate regional economic result from the growth of labor productivity will be least spent on unproductive purposes, which will ensure the further sustainable development of the territory.

Eight more constituent entities of the Russian Federation at the end of 2020 showed the share of the economically active population of its total number below 45%: from the level of the Altai Republic - 44.72% to a minimum value of 39.76% in the Republic of Tyva. Of course, any positive changes in labor productivity in these regions will also have a positive effect on regional productive forces and contribute to economic growth, but their impact on the standard of living of the population of the territory as a whole will be the least noticeable. Indeed, less than 40% of the economically active population of the Tyva Republic will find it more difficult to improve not only their standard of living, but also the remaining 60% of the economically inactive population.

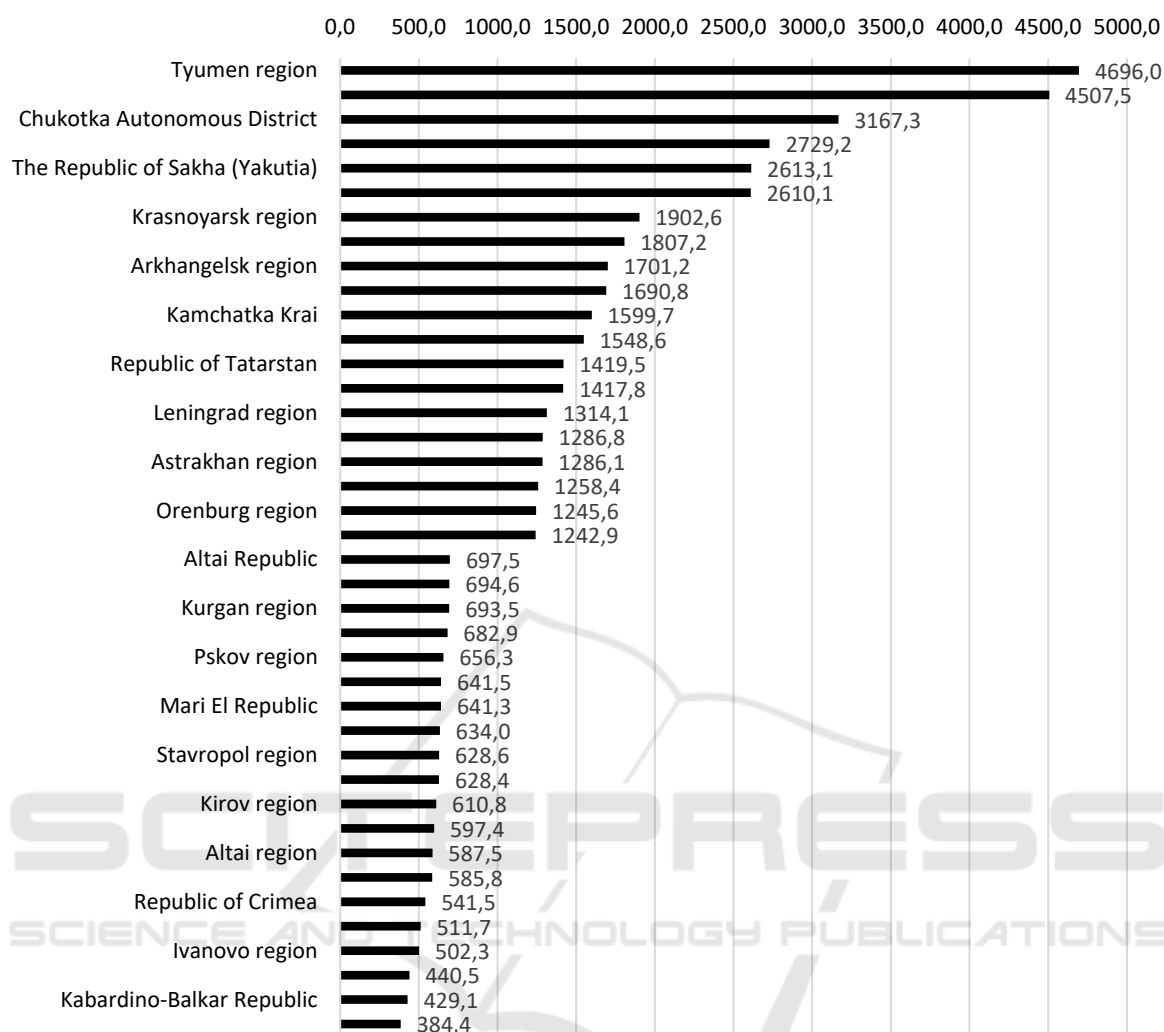
Let's analyze labor productivity in the regions of the Russian Federation. At the time of the study, statistical data on GRP for 2019 were available, so the calculation was made based on this year's data. Labor productivity was calculated as the ratio of GRP to the

number of employed population (Figure 3). For clarity of presentation of information and demonstration of a high level of labor productivity differentiation between the constituent entities of the Russian Federation, the graph shows 20 leading and 20 lagging regions for this indicator.

As can be seen from the graph, labor productivity in the Tyumen and Sakhalin regions is an order of magnitude higher than in the Chechen, Kabardino-Balkarian republics, and Ingushetia. On average, labor productivity of Russia's leading regions in terms of this indicator is 3.5 times higher than the level of 20 outsider regions.

Now let's see what the situation is with the average per capita income of the population in the regions over the same period (Figure 4). The graph, similarly to the previous one, shows the data of 20 leading subjects of the Russian Federation and 20 subjects with the lowest level of average per capita income of the population.

In contrast to the situation with labor productivity, the level of differentiation of Russian regions by the level of per capita income is not so significant. There is a variation of about 5 times between the indicator of the Chukotka Autonomous Okrug and the level of the Republics of Tyva and Ingushetia.

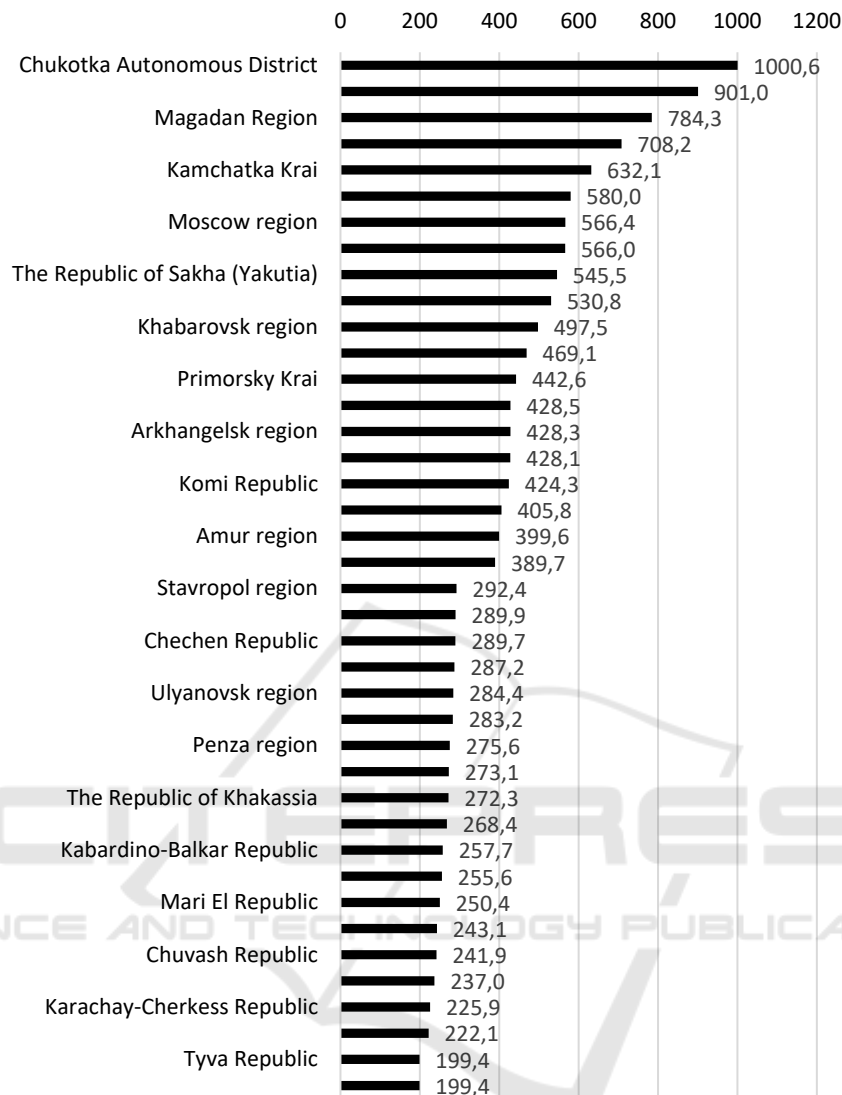


Source: Rosstat, calculated by the authors.

Figure 3: Labor productivity in Russian regions in 2019 (GRP per employee, 20 leading regions and 20 outsider regions), thousand rubles / person.

On average, the level of the twenty leading regions of Russia in terms of this indicator is only 2.2 times higher than the level of 20 outsider regions. This is not surprising, since in addition to wages in the composition of the average per capita income of the population, there are social payments, the level of which, within the framework of federal legislation, is approximately equal in all regions of the country. However, in the structure of average per capita incomes of the bottom twenty regions, social payments will make up a significantly higher share than in other constituent entities of the Russian Federation.

If we compare the data of the diagrams in Figures 3 and 4, we get the following picture. Fourteen regions out of twenty leading in terms of labor productivity have a high level of per capita incomes of the population. This confirms the thesis that an increase in labor productivity through an increase in the level of wages of the employed population by an average of two-thirds ensures a high level of average per capita income of the population. Moreover, all eight leading regions in terms of the share of the economically active population (Figure 2) were included in the top twenty in terms of per capita income of the population, which also confirms the



Source: Rosstat, calculated by the authors.

Figure 4: Average per capita incomes of the population in Russian regions in 2019 (20 leading regions and 20 outsider regions), thousand rubles / person in year.

significant role of employment in ensuring a high standard of living.

In regions that are outsiders in terms of average per capita income of the population, the correlation with the level of labor productivity is not much lower than among the leaders. Thirteen out of twenty subjects of the Russian Federation (approximately the same two-thirds) have both a comparatively low level of average per capita income of the population and a low level of labor productivity. The remaining seven regions: Volgograd, Ulyanovsk, Penza and Saratov regions, as well as the republics of Khakassia, Kalmykia and Tyva, having a relatively low level of

per capita income of the population, showed the level of labor productivity closer to the average Russian values. As the reason for such a picture, one can suggest the discrepancy between the time of the rise in the standard of living of the population and the period in which the increase in labor productivity occurs. Indeed, decisions on increasing wages and investing in the modernization of jobs can be made both before and after the implementation of measures to increase labor productivity.

4 CONCLUSIONS

In general, according to the results of the study, it can be noted that labor productivity has a significant impact on the standard of living of the population in the constituent entities of the Russian Federation.

Labor productivity in the region directly determines the level of income of the economically active population and indirectly affects the income of non-working citizens living in the region. The income of the population is the main indicator of the standard of living, which directly links it with labor productivity.

When setting the goals of regional development, traditionally aimed at improving the standard of living of the population, it is necessary, in addition to social tasks, to set guidelines for increasing labor productivity. The regions of the Russian Federation, which actively participated in the implementation of the national project "Labor productivity and employment support", received additional opportunities not only to support enterprises located on their territory, but also to improve the standard of living of the population as a whole.

Currently, there is a high differentiation of regions in terms of labor productivity. The participation of outsider regions in the national project can reduce the scale of interregional polarization in terms of both labor productivity and the standard of living of the population.

The complexity and multifactorial nature of the impact of labor productivity on various aspects of regional development requires additional analysis, which may become the subject of separate economic studies.

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