

# Regional physical education and sports sector development statistics: comparative analysis

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## Abstract

**Objective of the study** was to find the status of the national physical education and sports sector based on the comparative analysis of the regional progress.

**Methods and structure of the study.** We analyzed in the study the national physical education and sports sector development statistics with the regional (Federal District) progress elements for 2012–2019.

**Results and conclusion.** Our analysis of the physical education and sport sector progress statistics, with a special priority to the macroeconomic (socio-economic) progress indicators, showed an overall growth trend, with a special progress in the North Caucasian Federal District. The average federal physical education and sport sector funding for the period was reported to grow by as much as 167.57%, and the physical education and sport committed population by 70.86%; although these growths were of little effect on the physical education and sports infrastructure expansion (by 4.88% only) and physical education and sport sector staffing (by 13.58%) on the federal scale.

Our analysis showed that the long-term progress of the physical education and sports sector at the federal and regional levels requires growth in every physical education and sport sector progress element in harmony with the macroeconomic progress as all these progress aspects are directly correlated.

**Keywords:** *physical education and sports development strategy in Russia, physical education-and-sports-committed population, physical education development statistics.*

**Background.** An integrative analysis of the long-term progress of the regional and total physical education-and-sports-committed populations and other relevant physical education and sport sector process statistics makes it possible to explore correlations of the progress data and understand the key progress trends in every core domain across the Russian Federation.

**Objective of the study** was to analyze the national physical education and sports sector development statistics by a regional progress profiling analysis.

**Methods and structure of the study.** We have rated and analyzed the regional socio-economic development statistics with the physical education and sport sector progress data reported for the period 2012-2019 for the Russian Federation on the whole

and the following 8 Federal Districts in particular: Central, Northwestern, Southern, North Caucasian, Volga, Siberian, Ural, and the Far Eastern Federal Districts.

**Results and discussion.** Our analysis of the above physical education and sport sector progress statistics, with a special priority to the macroeconomic (socio-economic) progress indicators, showed an overall growth trend. There was, however, a general regress in the federal population on the whole versus some regional growth in the Central, Northwestern and North Caucasian Federal Districts.

The physical-education-and-sport-committed populations was reported to grow in every Federal District led by the North Caucasian Federal District with its 153.95% reported progress for the period – versus the total regional population growth by



4.01% and regional physical education and sport sector funding growth by +893.33%; average per capita income growth of 33.18%; physical education and sports infrastructure expansion by 14.24%, and the physical education and sport sector staffing by 15.18%. On the whole, the North Caucasian Federal District have demonstrated a direct correlation of the economic progress statistics with the physical education and sport sector progress ones.

The Central Federal District was ranked second on the regional physical education and sport sector progress scale for the period, with its physical education-and-sports-committed population growth reported at 83.59%; total population growth by +2.07%; and the physical education and sports funding by +118.8% (although it was 7 times lower than in the North Caucasian Federal District). The regional physical education and sports infrastructure was reported to grow by +18.63%, and the physical education and sport sector staffing by +38.47% versus the average per capita income growth by +42.90% - that was above the federal average. On the whole, this economic progress has contributed to the physical education and sport sector development process.

The Ural Federal District was ranked third with its reported physical education and sports-committed population progress by 82.21%, plus two high (above the federal average) and closely correlated progress rates: physical education and sports infrastructure growth by +13.55% and physical education and sport sector full-time staff growth by +22.24%. These progress data are particularly impressive in the context of the total population sagging trend, and this gives reasons to assume that the physical education-and-sports-committed population growth may be partially due to the general population outflow from the region. The physical education and sport sector funding for the period was under the federal average but still high enough at +81.28%; and the average per capita income was reported to grow by +32.16%.

The Siberian Federal District was ranked 4th in the federal physical education and sport statistics with its physical education and sport sector staffing growth by 79.60% and other growth trends for the period, although the progresses were still lower than the federal average: see Table. Our analysis of correlations in the physical education and sports progress data arrays with a special attention to the physical-education-and-sports-committed population growth showed the local physical education and sport developments being

generally driven by the overall economic progress.

The Southern Federal District was ranked the last on the list with its only 29.40% growth in the physical-education-and-sports-committed population versus the total population sagging trend of -15.05%, and the still low physical education and sports funding growth of +36.36% (much lower than the national average); plus regress in the physical education and sports infrastructure development by -13.01% and staffing of -6.03% - that apparently proves the above assumption. Note that the average per capita income growth in the region was maximal for Russia at +95.57% (2.3 times higher than the federal average), and this fact may be interpreted as indicative of the regional population being unmotivated for physical education and sports and, hence, the regional income management policies are still inefficient and incompliant with the physical education and sport sector policies and priorities.

Correlation analysis of the physical education and sport sector progress rates including the physical education and sport -committed population growth and the physical education and sport sector staffing, infrastructure and funding statistics found them directly correlated, with some macroeconomic indicators - such as the average per capita income growths versus the total populations - being of little contributions to the physical education and sport sector progress.

On the whole for the Russian Federation for the period, the physical education and sport sector funding was reported to grow by 167.57% in correlation with the physical education and sports-committed population growth by 70.86%. Growth in the physical education and sport sector funding in every Federal District was associated with growth in the physical education and sports-committed populations. Since the physical education and sport sector funding in 2012-2019 varied in a wide range across the Federal Districts, average growth was found not always correlated with progress in the physical education and sports-committed populations. Moreover, targeted specific physical education and sport sector funding increments in different regions were found little if ever contribute to the physical education and sports-committed population growths. Note that the correlation analysis showed the other physical education and sport sector progress rates being not always directly correlated.

On the whole, the reporting data analysis showed that the considerable growth of the federal physical education and sport sector funding by 167.57% on



average was of little effect on the physical education and sports infrastructure expansion (by 4.88%) and physical education and sport sector staffing (by 13.58%) statistics. On the national average scale, the physical education and sport sector funding was inefficient in the physical education and sports assets/ infrastructure building and physical education and sport service staffing elements – although these two elements are critical for the physical education and sport sector progress and grass-root sports human resource and Olympic resource building agendas. Therefore, we would recommend the available physical education and sport sector funding being disbursed on a more focused and efficient basis, with a special priority to the physical education and sports infrastructure development and physical education and sport staff advanced training and re-training initiatives. It should be emphasized in this context that the North Caucasian Federal District reported the highest growth in the physical education and sport sector funding (9 times higher than in 2012) with the associating progress in the physical education and sport infrastructure by +14.24%, and physical education and sport sector full-time staffing by +15.18%.

**Conclusion.** Our analysis showed that the long-term progress of the physical education and sport sector at the federal and regional levels requires growth in every physical education and sport sector progress el-

ement in harmony with the macroeconomic development on the whole as all these processes are directly correlated. Such analysis will help the statistical monitoring of the physical education and sport sector progress profiles using a timely updated reporting database – to facilitate the efforts to prudently design and manage the physical education and sport sector staff flows with every other associating progress element including the local governance, social development, business and social processes.

### References

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