

Participation of Russian Workers in Continuing Professional Education

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Abstract. In this paper, we analyze the participation rates of Russian workers in continuing professional education (CPE) using Rosstat data and sociological surveys, including the 2014 and 2015 Eurobarometer in Russia. We reveal considerable differences in the percentages of workers covered by CPE across age cohorts, personnel categories and, especially, industries. Our analysis shows that formalized CPE norms and standards in such industries as education and healthcare have a largely positive effect on the incidence of employee participation in advanced trainings. Next, we demonstrate that the data collection methods

used by Rosstat do not allow for a comprehensive analysis of CPE participation rates in all industries, as only large and medium-sized companies are covered by the official statistics, while small businesses, which form the best part of the retail sector, are left out. Besides, the rigid regulatory framework of the official statistics makes it impossible to embrace the diversity of existing types and forms of CPE. There is no single method to measure the rate of participation in continuing education (not only professional), which we demonstrate in our review of methodologies used by Russian and foreign researchers. As a result, comparing the rates of participation in lifelong learning (including CPE) in different countries becomes a challenging task.

Keywords: continuing professional education, lifelong learning, adult education, advanced training, retraining/professional conversion, human capital, skill resources.

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1. Введение

The education system does not just serve to supply highly qualified employees to the economy, as nowadays learning and professional self-improvement do not end with the completion of tertiary studies. Continuous renewal of employee competencies is required to integrate new process technologies and use the positive experiences of other market players. As a result, the economic efficiency of specific companies increases for the good of economy as a whole. The social function of lifelong learning consists in providing the opportunity for occupational conversion to those who find themselves unappreciated for some reason. Finally, learning new knowledge and skills not

only fills one's spare time with interesting and useful activities but also contributes to overall social development; this is becoming more and more widespread. It helps enhance the overall cultural and educational potential, expand and intensify social networks through interactions during various collective instructional and enlightenment practices, and bring together representatives of diverse socioeconomic classes.

The existing definitions of lifelong learning summarize the multiple aspects of this long-lasting knowledge accumulation process. There is even discrimination between lifelong learning and lifewide learning, the latter being about not only continuously enhancing one's knowledge in a specific field but also constantly broadening one's horizons and learning new disciplines. Lifelong learning includes school education, tertiary education, continuing professional self-improvement (organized and informal), as well as activities designed to acquire various competencies that are not always related to a primary occupation [Belyakov et al. 2006: 17]. There are "niche" domains of science studying school and tertiary education as well as self-educating leisure activities. So, lifelong learning is most often understood as adult education, with, notably, continuing professional education (CPE) as the most economically meaningful part of it¹.

The importance of CPE for the national economy is recognized at governmental level as well. For this reason, the Decree of the President of the Russian Federation No. 599 "On National Education and Science Policy Instruments" of May 7, 2012 underlines the need for increasing the proportion of the labor force involved in professional self-education and self-improvement².

Indices of participation in lifelong learning and methods of their measurement

A comparison of lifelong learning participation rates in Russia and European countries does not allow for a definitive conclusion, as the values depend largely on the data source. For instance, according to the 2014 Eurobarometer survey, the index of participation of workers aged 25–64 in adult learning in Russia is higher than in Germany, yet is ranked lower than in Latvia by the Russian Longitudinal Monitoring Survey (RLMS) conducted by the Higher School of Economics (HSE) (Table 1).

The problem is that researchers have still not agreed on a consistent measure of participation in lifelong learning as a whole and CPE in particular. For example, Eurostat³ surveys assess the percentage of workers aged 25–64 who engaged in any form of lifelong learning

¹ For more on the glossary of lifelong learning, see, for instance, [Belyakov et al. 2006; Klyucharev et al. 2014].

² <http://rg.ru/2012/05/09/nauka-dok.html>

³ Eurostat. Short Description for Lifelong Learning <http://ec.europa.eu/eurostat/tgm/web/table/description.jsp>

Table 1. Percentage of workers aged 25–64 involved in lifelong learning (not only professional development) in Russia as compared to European countries, 2013 (ranked in descending order)

Country	Percentage of workers involved in lifelong learning (%)	Country	Percentage of workers involved in lifelong learning (%)
Denmark	31.4	Germany	7.8
Switzerland	30.4	Malta	7.6
Sweden	28.1	Ireland	7.3
Iceland	25.8	Cyprus	6.9
Finland	24.9	Belgium	6.7
Norway	20.4	Latvia	6.5
France	17.7	Italy	6.2
Netherlands	17.4	Lithuania	5.7
Great Britain	16.1	Russia (as estimated by RMLSHSE)	5.7
Luxembourg	14.4	Poland	4.3
Austria	14.0	Turkey	4.0
Estonia	12.6	The former Yugoslav Republic of Macedonia	3.5
Slovenia	12.4	Greece	3.0
Spain	11.1	Hungary	3.0
EU as a whole (28 countries)	10.5	Croatia	2.9
Czech Republic	9.7	Slovakia	2.9
Portugal	9.7	Romania	1.8
Russia (yearly average, according to the 2014 Eurobarometer)	9.0	Bulgaria	1.7

Sources: Eurostat, Eurobarometer in Russia, RMLSHSE, author's estimates.

(obtaining new knowledge as perceived by respondents) in the four weeks preceding the survey. According to the methodology used by the Russian Monitoring of Continuing Professional Education conducted by the Center for Economics of Lifelong Learning of the Russian Presidential Academy of National Economy and Public Administration (RANEPA)⁴, researchers consider participation of the population, including the unemployed, in any type of lifelong learning (mainly or

⁴ Eurobarometer in Russia, a RANEPA project <http://www.ranepa.ru/uceniyy-issledov/strategii-i-doklady-2/evrobarometr>

ganized. i. e. in the form of trainings, courses, etc.) in the five years preceding the survey. Meanwhile, the RLMSHSE⁵ measures the percentage of the population that engaged in any kind of continuing education (organized but not necessarily professional) in the 12 months preceding the survey. Finally, Rosstat⁶ data covers employees of large and medium-sized companies who received continuing professional education during the fiscal year, as reported by the companies themselves. Obviously, the difference in the calculation methods makes the comparison of available participation indices technically incorrect, though not impossible.

**Specific features
of participation of
Russian workers
in CPE**

According to Rosstat statistics, 13.8% of employees (15.2% in the 25–64 age group) received continuing professional education in various forms in 2013⁷. If we extrapolate this result, we can assume that it will take seven years to engage 100% of employees in lifelong learning, which is even more than in the Soviet standard of “continuing education every five years”. It is obvious, however, that this index is a good example of the tyranny of averages, as no allowance was made for differences across industries, professional categories, or age cohorts.

People usually lose passion for learning with age. Besides, employers, the State included, are often uninterested in providing education to older employees, pre-retirement age workers particularly [Avraamova, Klyachko, Loginov 2015]. According to the statistical data that RANEPА collects regularly for the Eurobarometer project⁸, about 45% of Russian employees above the age of 18 had engaged in lifelong learning in the five years preceding the survey in 2015⁹. The

⁵ Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMSHSE) is conducted by the National Research University Higher School of Economics and Demoscope CJSC with participation of the Carolina Population Center (University of North Carolina, Chapel Hill) and the Institute of Sociology, Russian Academy of Sciences: <http://www.cpc.unc.edu/projects/rlms>; <http://www.hse.ru/rlms>

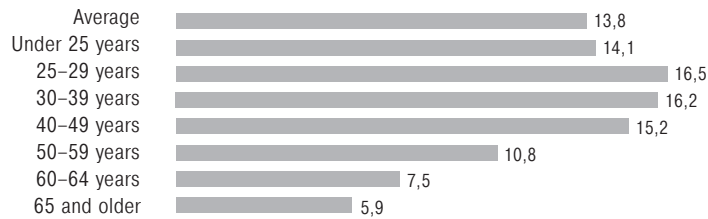
⁶ Rosstat. Continuing Professional Development of Employees http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/bbd2da8043f81ba38a78cbd9211eac8

⁷ The most recent Rosstat data available; the next update is due in 2016.

⁸ The study was conducted using surveys in ten regions of Russia in 2014 and 2015. The total sample included 6,000 observations. The findings of surveys among working respondents (N = 3,400) were used to analyze the participation of adults in continuing professional education. The module of items on lifelong learning was developed and integrated into the Eurobarometer questionnaire by the RANEPА Lifelong Learning Economics Center, which has monitored continuing professional education in priority industries of Russia since 2013.

⁹ The questionnaire items were formulated to ask about continuing education in general; 45% of workers who engaged in continuing education in the pre-

Figure 1. **Percentage of workers engaged in continuing education across age cohorts**, Rosstat, 2013 (%)



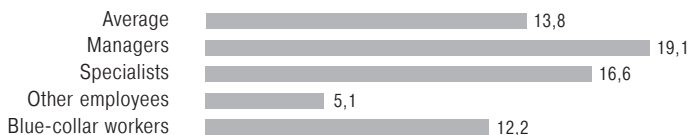
highest participation rate of over 50% was observed in the age cohorts from 25 to 39 years. At the same time, only one worker out of three received continuing education for the same period in the 60+ age group. Involvement rates in the youngest cohort (under 25) do not reach maximum values because young specialists, who clearly possess no high-level competencies, obtain specific skills that they need right at their workplace. This age-related differentiation is confirmed by Rosstat statistics. As shown in Figure 1, the highest participation rates are observed in the age cohorts from 25 to 39 years, while only one in ten workers aged over 50 reported having engaged in lifelong learning.

Eurobarometer statistics show that over 60% of Russian workers aged between 18 and 39 would like to obtain some kind of continuing education. The percentage among workers aged over 40 and those over 60 is noticeably lower, being 47% and 30%, respectively. Quite naturally, qualitatively different approaches should be applied to increase the CPE involvement of the youngest and the oldest cohorts, as the latter requires a much stronger impetus for learning. However, the employer's attitude often does not contribute to continuing development of employees over 40. According to the 2015 Eurobarometer, employer's disinterest was reason number one for the older cohorts not having engaged in continuing education while willing to do so in the five years preceding the survey (no more than 9% among those under 40, 14% in the 40–49 cohort, and over 18% among those aged 50–59). Therefore, if we make a point of increasing the participation of Russian workers in CPE, we should pay particular attention to the elder generation.

However, differences between worker categories produce a much more considerable differentiation in terms of continuing professional education than differences between age cohorts. What catches the eye right away is a huge dip in the “other employees” category.

vious five years used their own resources to pay for it, which implies that it was not only professional education, as individuals can enrich their knowledge in any area, not only for the purpose of upgrading their skills.

Figure 2. **Percentage of workers participating in continuing education across different worker categories**, Rosstat, 2013 (%)



Rosstat uses this term to refer to third-class employees, as classified in OKPDTR¹⁰, who mostly include non-manual workers holding professional positions that require no higher education (clerks, cashiers, conductors, etc.). Sociologists traditionally define them as semi-professionals (see, for instance, [Anikin, 2009]). They account for a little more than 3% of the total employed population, and if we leave them out of the analysis, the average percentage of workers involved in continuing education comes to 14.6%. Managers participate in lifelong learning more often than others: over 19% of managers were engaged in continuing education in 2013, as compared to 17% of specialists and only 12% of blue-collar workers, according to Rosstat.

Sociological research also proves that semi-professionals engage in continuing education less often than other types of workers. According to the 2015 Eurobarometer¹¹, over 60% of managers and about 50% (56% in the public sector) of specialists had engaged in CPE in the five years preceding the survey. Meanwhile, the rate was 43% among clerks (office workers), 27% among regular retail workers, and 25% among blue-collar workers¹². The difference in the Rosstat and Eurobarometer estimates of the percentage of workers who received continuing education is explained by the difference in the methods of data collection: Rosstat deals with information on the most qualified segment of professional workers, i. e. those employed in large and medium-sized enterprises, whereas the non-qualified workforce, mostly used by small businesses for various reasons, remains beyond the official statistics.

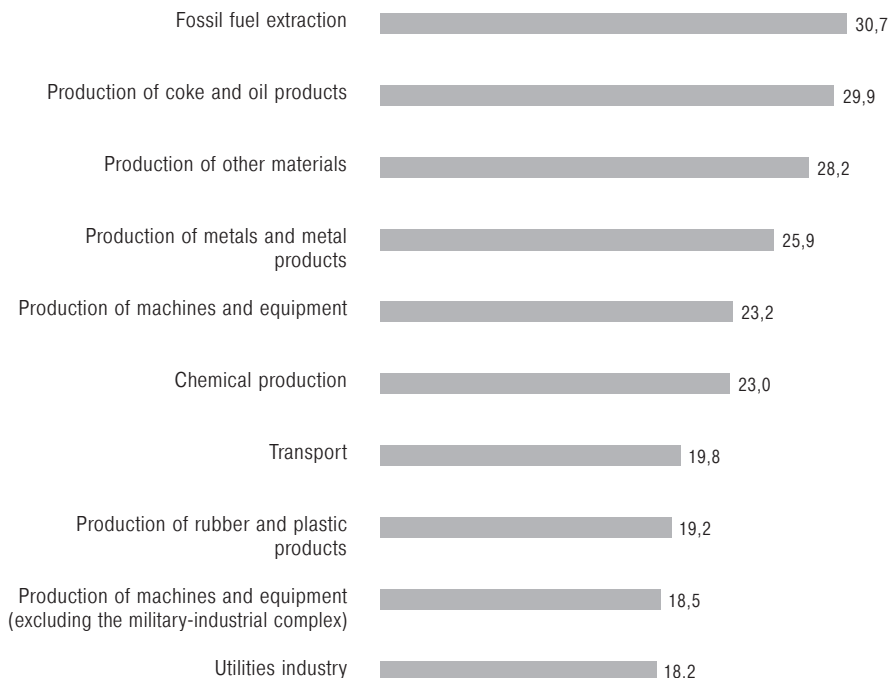
CPE participation rates for different worker categories also differ in the public and private sectors. According to the 2015 Eurobarometer, the CPE participation rates in the public sector do not depend on

¹⁰ OKPDTR stands for the All-Russia Classifier of Occupations, Positions and Wage Categories OK 016–94: <http://base.garant.ru/1548770/>

¹¹ Eurobarometer measures the percentage of Russian workers who engaged in *any* type of continuing education in the last five years. Technically, it is incorrect to compare these rates with those of Rosstat, but our aim is to demonstrate that sociological data is validated by statistics.

¹² The 2015 Eurobarometer also discriminates among businessmen and the self-employed (46% participation rate), agricultural workers (33%) and law enforcement officers (43%).

Figure 3. **Industries with the highest rates of participation of workers in continuing education (as classified in OKVED), Rosstat, 2013 (%)**



the age of workers. Besides, a relatively small difference is observed between the percentages among managers of different age cohorts: 67% (i. e. on average 13.4% yearly) of managers aged under 39 engaged in continuing education in the five years preceding the survey, as compared to 54% among managers aged over 40. The respective rates for other worker categories in the public sector were as follows: 58% and 39% among specialists, 52% and 34% among office workers, 36% and 17% among retail workers, 29% and 21% among blue-collar workers. Thus, the public-sector continuing education standards provide a comparatively higher level of participation in CPE throughout the whole period of employment, which cannot be said of other types of workers.

Industry-based differentiation of the rate of participation in CPE was found to be the highest. Mining and mineral processing industries proved to be the most successful in this regard, especially those dealing with oil, gas and metals (Fig. 3). This should come as no surprise, as the primary sector of the Russian economy burgeoned and flour-

¹³ All-Russia Classifier of Economic Activities

ished during the last decades, giving birth to major market players that need and can afford to introduce and develop their own CPE systems.

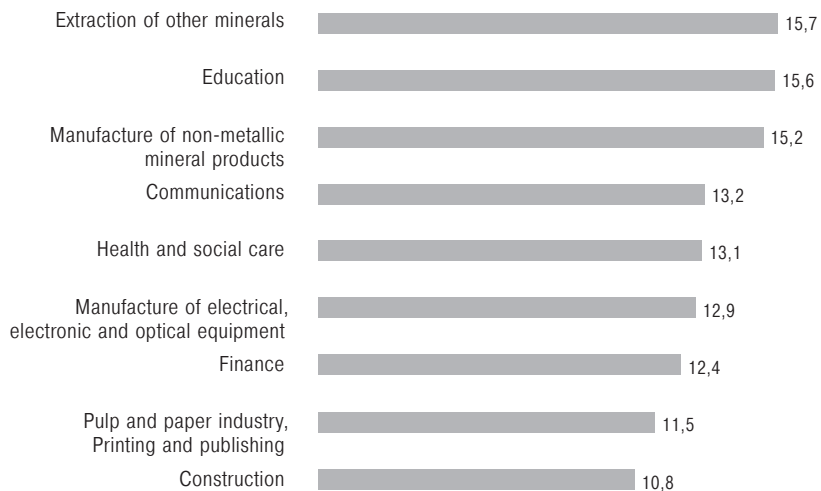
Enterprises involved in machine construction, maintenance and operation also show high rates of participation of workers in CPE. These include aerospace manufacturers, so no wonder they do their best to upgrade their workers' skills, which form their competitive edge in the market, among other things. The same can be said of the chemical and energy industries, where low qualifications could lead to industrial disasters.

Many of the large and medium-sized enterprises in the industries specified in Figure 3 have developed and integrated a systems staffing approach. To attract and/or prepare highly-qualified workers, they establish corporate universities and training centers, develop customized training modules, knowledge-based systems, professional development and retraining programs, and bring in higher education institutions. Many of such enterprises manufacture products considered to be Russia's major export earners, which imposes higher requirements for quality and manufacturing technology, and consequently for personnel qualification. In addition, global competition impels those companies to care about their prestige, in particular by demonstrating their social responsibility. For example, they involve young people actively, engaging to provide them with professional education.

Figure 4 shows the list of industries that demonstrate moderate rates of participation of workers in CPE. As with the leaders, an extractive industry tops the list. Interestingly, continuing education was pursued by only 13% of the workers of large and medium-sized enterprises in such a knowledge-intensive industry as the manufacture of electronic and optical equipment in 2013. This requires a closer analysis. Notably, 27% of electronic and optical equipment manufacturers (except small businesses) integrated various types of innovations in 2013, according to the same Rosstat. As a comparison, the overall industrial production index did not exceed 11%¹⁴. Clearly, these innovations would suggest that employees must have beentaught to integrate and use them, which means that the industry apparently offers some types and forms of continuing professional education that are kept beyond the official statistics.

¹⁴ Innovation activity of industrial manufacturers (the proportion of industrial manufacturers that integrate technological, organizational and/or marketing innovations in the total number of surveyed companies, annual percentage). Form No. 4-Innovation defines industrial manufacturers as legal entities, except small businesses, whose economic activities include extraction of minerals and energy, processing, as well as generation and distribution of electricity, gas and water (except trade of electricity and fuel gas supplied via distribution networks). The index is calculated as a proportion of the number of industrial manufacturers engaged in technological innovations to the overall number of surveyed companies.

Figure 4. **Industries that demonstrate moderate rates of participation of workers in CPE (as classified in OKVED)**, Rosstat, 2013 (%)

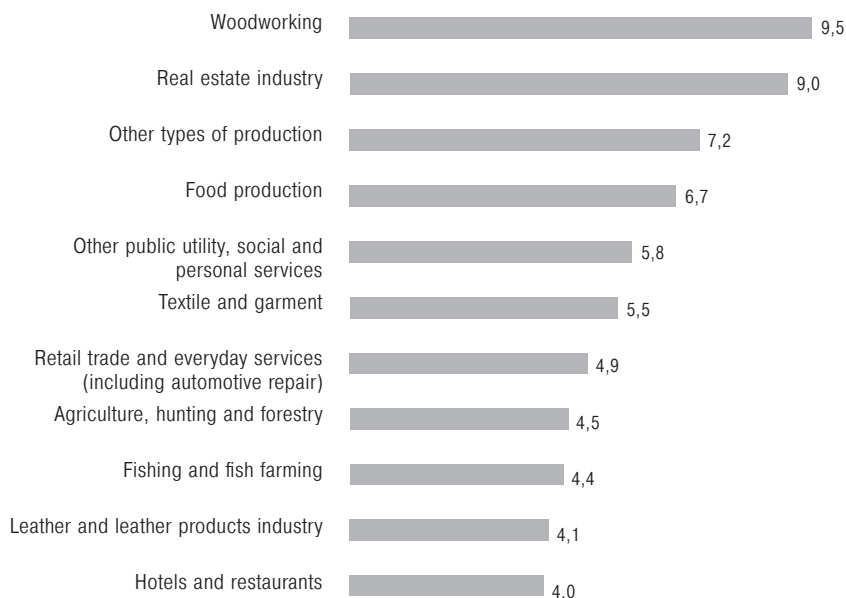


Education and healthcare hold an exceptional position due to the existing priorities in teaching specific categories of workers. The overwhelming majority (about 90%) of people employed in education and healthcare belong to the manager and specialist categories, where over 20% of workers received continuing education in 2013. Physicians are required to participate in advanced training programs at least every five years, and the same used to apply to teachers before 2013¹⁵. The percentage of education and healthcare workers who engaged in continuing education increased between 2010 and 2013, though only slightly (by 2% approximately). As we can see, these two largely government-owned industries are quite well-off in terms of CPE, and this is an instance of a positive outcome provided by setting CPE norms and standards legislatively.

Unlike in all other industries, telecommunications agencies provided continuing education to almost 20% of “other employees” (with lower participation rates in other worker categories: 17% among managers, 11% among specialists, and 13% among blue-collar workers). It is fair to assume that this lack of necessity to upgrade skills of any category of workers but semi-professionals (whereas they hardly account for 6% in the whole industry) is an industry-specific characteristic. Naturally, this assumption can only be verified using an in-depth

¹⁵ The legislative regulation allowing teachers to take training courses at least every three years was introduced by Federal Law of the Russian Federation No. 273-FZ “On Education in the Russian Federation” of December 29, 2012. Obviously, these changes had no impact on the 2013 statistics.

Figure 5. **Industries—outsiders in CPE participation rates (as classified in OKVED), Rosstat, 2013 (%)**



empirical study of CPE characteristics in the telecommunications industry.

Figure 5 presents the outsider industries, where less than 10% of workers are engaged in continuing education in 2013, as reported by Rosstat. Obviously, these industries require less qualified labor than the real sector, and CPE may be not demanded at all. At the same time, it is very likely that the types and forms of training practiced in these industries are not covered by the official statistics. For instance, the best-in-class hospitality companies representing major international hotel brands (Marriott, Hilton, etc.) implement corporate lifelong learning programs¹⁶ that embrace corporate universities, internships, seminars, trainings, employee turnover, etc. They set industry standards, which are then adopted by smaller market players.

The 2013 Rosstat surveys estimated the average annual number of employees in the retail sector to be 13.1 million people. However, only data on large and medium-sized enterprises is considered when assessing the CPE participation rates, while small businesses are left out. Thus, the base value is 2.3 million employees for the retail industry. Abundant small businesses are a typical feature of this sector. For

¹⁶ For more on the personnel practices of the mentioned companies, see their official websites: <http://jobs.hiltonworldwide.com/index.php?language=en>, <https://www.marriott.com/careers/working-for-marriott.mi>

Table 2. Different absolute indices of the number of employees, Rosstat

Different absolute indices of the number of employed population	2013
Payroll-based number of employees (base for calculating the CPE participation rates)	31 659 892
Average number of employees (statistical book data) ^a	45 815 640
Average annual number of employees (Rosstat survey) ^b	71 391 460

Sources: ^aThe 2013 data was taken from the Rosstat Statistical Book: Rosstat (2014) *Regiony Rossii. Sotsialno-ekonomicheskie pokazateli. 2014: Stat. sbornik* [Regions of Russia. Socioeconomic Indicators. 2014: Statistical Book], Moscow, pp. 92–93]; ^b Rosstat. The number of employees in the industry: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/wages/labour_force/#.

example, the energy industry does not have this huge gap between the average annual number of employees and the CPE participation rate calculation base (2.3 million and 1.7 million, respectively). Otherwise speaking, the official statistics are unable to show a true picture of CPE in the industries shown in Figure 5 due to the methods used.

The problem of overestimated CPE participation rates applies to all industries, as the Rosstat methodology only counts large and medium-sized companies that are more concerned about employee education and often have a greater opportunity to provide it. In 2013, the number of workers (Table 2) used as a base for calculations made 69% of the average number of employees and 44% of the “average annual number of employees in the industry” (estimated by Rosstat based on a representative sample survey). In other words, Rosstat data does not allow for assessing the overall situation with the CPE of working population, let alone establishing the causes of revealed differences across industries, age cohorts and professional categories. Neither does it make it possible to assess the demand for other types and forms of continuing education, particularly in cases where employers are unaware of their employees having taken some courses. Nevertheless, the findings in this data analysis are certainly valuable for empirical research in the field.

The most widespread types and forms of CPE in Russia

The Rosstat methodology defines three types of continuing professional education, discriminating among various training programs¹⁷:

¹⁷ This refers to the methodology of 2013. In 2010, there used to be one more type of CPE: “targeted training courses”, i. e. continuing professional development for blue- and white-collar workers provided to familiarize them with new machines, equipment, materials, processes, progressive forms of labor organization, employment legislation, equipment operation and maintenance rules, workplace safety requirements, and quality improvement is-

continuing professional education (development)¹⁸, professional development, and employer-funded professional education.

Continuing professional education (development) is designed to satisfy employee's educational and professional needs, provide professional development, and ensure that employee qualifications meet the changing requirements of the profession. The following programs are included:

- Professional retraining to acquire competencies required for a new occupation; professional conversion. Successful graduates receive a diploma of professional conversion. Full-time and part-time/internship programs are available.
- Advanced training to upgrade and/or develop new competencies required for a profession and/or to enhance the level of proficiency in the existing competencies. Successful graduates receive a certificate of advanced training. Full-time and part-time/internship programs are available.

Professional education is designed to enable employees to acquire knowledge, skills and competencies required to perform specific duties or functions (demanded for the given type of blue- or white-collar profession). Successful graduates receive a certificate of blue- or white-collar profession that assigns them a class, a category, or a grade. Professional education can take the form of on-the-job training, including mentorship. The following programs are included:

- Professional training in specific blue- and white-collar professions (for those who did not have any profession before);
- Retraining of blue- and white-collar workers (professional education for those with a blue- or white-collar profession to teach them another profession so that they meet the manufacturing or occupational requirements);
- Advanced training for blue- and white-collar workers (professional education for those with a blue- or white-collar profession to enhance their professional knowledge, skills and competencies consistently without increasing the level of education).

Employer-funded professional education is a type of education that workers obtain in professional education institutions of all lev-

ues, as well as other issues designed to solve specific technical, economic and other problems. Apparently, this type of CPE was merged with professional education in 2013.

¹⁸ It is our understanding that "continuing professional education" includes all types of programs described in the Rosstat methodology. Therefore, we will hereinafter use the term "continuing professional development" to refer to specific CPE programs so as to avoid ambiguity.

Table 3. Percentage of workers engaged in different types of CPE programs across worker categories, Rosstat, 2013 (% of all employees in the category engaged in CPE)

Type of CPE	Managers	Specialists	Other employees	Blue-collar workers	Average
Continuing professional development	81,5	87,6	44,9	14,3	55,2
Including programs:					
Professional retraining	11,3	6,7	14,5	33,6	10,7
Advanced training	89,3	93,8	87,1	67,8	90,0
Professional education	19,4	12,9	55,7	86,9	45,6
Including programs:					
Professional training in specific blue- and white-collar professions	25,3	31,8	27,6	26,9	27,4
Retraining of blue- and white-collar workers	8,8	6,2	8,6	18,9	16,4
Advanced training for blue- and white-collar workers	68,0	63,6	64,6	56,0	57,9
Employer-funded professional education	0,6	1,2	2,2	0,7	0,9
Including:					
Initial professional education	0,0	0,0	9,1	28,6	11,1
Secondary professional education	16,7	25,0	36,4	42,9	33,3
Higher professional education	83,3	75,0	59,1	28,6	55,6

Note: Values above the average are highlighted here in and Table 4. As one and the same employee could engage in different programs and types of CPE, the sum of percentages may exceed 100%.

els. Successful graduates receive a diploma of the relevant level of education.

In 2013, 55% of all workers covered by CPE participated in continuing professional development programs, 46% in professional education programs, and 1% or less studied in professional education institutions, their education funded by employers¹⁹. Advanced training prevailed among the continuing professional development programs (professional retraining was provided to only 6% of all CPE participants). Advanced training (26%) and professional training (13%) programs were the most popular in professional education. Few employees engaged in employer-funded professional education, and they most often obtained higher professional education (0.5%).

Table 3 shows that continuing professional development programs are most often completed by specialists and managers, while blue-collar workers take professional education courses more often.

¹⁹ The sum of percentages exceeds 100%, as one and the same employee could engage in more than one CPE program during the year.

Table 4. **Percentage of workers covered by different CPE programs across age cohorts, Rosstat, 2013** (% of all employees in the cohort engaged in CPE)

Type of CPE	Age (years)							Average
	< 25	25–29	30–39	40–49	50–59	60–64	≥ 65	
Continuing professional development	37,5	46,2	54,3	59,7	61,6	70,9	79,5	55,2
Including programs:								
Professional retraining	16,8	14,3	11,4	9,5	8,4	7,1	5,9	10,7
Advanced training	84,0	86,4	89,3	91,3	92,4	93,8	94,8	90,0
Professional education	63,3	54,6	46,6	41,2	39,2	29,8	21,2	45,6
Including programs:								
Professional training in specific blue- and white-collar professions	38,4	30,4	26,2	24,0	24,0	24,2	22,2	27,4
Retraining of blue- and white-collar workers	18,3	16,8	16,5	16,0	15,6	15,1	11,8	16,4
Advanced training for blue- and white-collar workers	46,9	54,9	58,8	61,4	62,0	61,7	66,5	57,9
Employer-funded professional education	4,1	1,3	0,7	0,5	0,3	0,3	0,3	0,9
Including:								
Initial professional education	12,2	7,7	14,3	20,0	33,3	0,0	0,0	11,1
Secondary professional education	29,3	23,1	28,6	40,0	33,3	33,3	33,3	33,3
Higher professional education	61,0	69,2	57,1	60,0	33,3	33,3	33,3	55,6

Semi-professionals engage in employer-funded professional education more frequently than other types of workers. Blue-collar workers engage in professional conversion programs in all types of CPE more often than others, while all other categories take advanced training courses much more often, and specialists are retrained less often than any other category of workers. Statistics confirm the sociological findings (see, for example, [Karavay, 2016]) squaring employee enthusiasm about CPE initially with searching for a new job. Meanwhile, analysis of Rosstat data reveals that employers tend to provide education to their workers with a view to transferring them to another department. These conclusions may be regarded as evidence that the Russian economy does not need a number of highly-qualified niche experts.

A cohort analysis shows that the number of workers participating in continuing professional development is increasing in older cohorts, while the percentage of those who take professional education courses is going down (Table 4). Professional retraining programs—both in professional education and continuing professional development—are more demanded among youth, as the percentage of work-

ers covered by these programs is relatively high in younger cohorts. Contrastingly, advanced training is more popular among senior employees. Employer-funded professional education is often pursued by young people under 25, and these are largely higher education programs. Statistics demonstrate that CPE solves qualitatively different problems in age groups under and over the age of 30. At the start of their careers, people are more likely to try to “find themselves” by engaging in retraining courses (mostly within professional education), whereas those aged over 30 tend to enhance their professional competencies by using more formalized training paths (CPE advanced training programs).

Continuing professional development programs prevailed in such industries as education (93% of all employees in the industry covered by CPE), healthcare (92%) and public utility services²⁰ (73%). As for the rest of the industries, over half of the workers covered by CPE (65% on average) participated in professional education programs.

Quite expectedly, a comparison between different worker categories based on the statistics provided by companies shows that managers of all levels engage in continuing education more often (Fig. 6), followed by specialists and blue-collar workers.

The year 2013 saw a noticeable decline in the CPE participation rate compared to 2010: from 15.8% to 13.8%, according to Rosstat. Hence, the index reduced by 2% in two years. White-collar workers and managers appeared to be the most affected (1.76- and 1.35-fold reductions, respectively), while the category of blue-collar workers suffered the least (about 1% reduction).

Over 18% of employees aged under 30 received continuing professional education in 2010, but the rate dropped by almost 3% to 15.6% in 2013. Among older workers, the decline in the CPE participation rate was only 1.3% (from 14.9% to 13.6%)²¹. However, young people still engaged in CPE more often than their elder colleagues (Fig. 7). Hence, we can see that the proportion of Russian workers covered by CPE dropped in 2013 compared to 2010 in all working population groups, whether based on the age or worker category.

When comparing the rates of participation in different CPE programs in 2010 and 2013, we should keep in mind that allowability of such a comparison is rather conditional, as the methods of calculation changed a lot during that period. According to Rosstat (Table 5), 2.2 million people were involved in continuing professional development programs and 1.2 million in continuing education programs in 2010, compared to 2.4 million and 2.0 million in 2013, respectively. The 2013 statistical data does not cover workers who participated in

²⁰ “Other public utility, social and personal services” in OKVED.

²¹ Meanwhile, the CPE participation rate reduced from 16.5% to 14.1% among workers aged under 25 and from 19.6% to 16.5% among those aged 25–30.

Figure 6. **Percentage of workers of different categories covered by CPE in 2010 and 2013, Rosstat (%)**

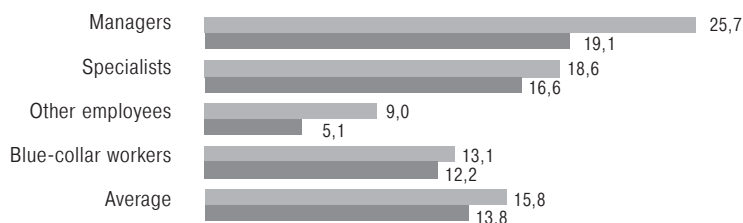


Figure 7. **Percentage of workers covered by CPE in 2010 and 2013 across two major age cohorts, Rosstat (%)**

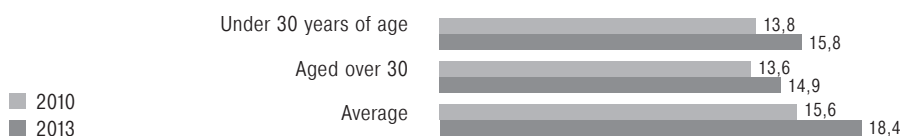


Table 5. **Percentage of workers covered by different types of CPE in 2010 and 2013, Rosstat (%)**

Type of CPE	2010	2013
Continuing professional development	6.8	7.6
Continuing professional training or retraining (professional education in 2013)	3.9	6.3
Targeted training courses	5.7	N/A
Employer-funded professional education	0.1	0.1
Total workers covered	15.8	13.8

targeted training courses, as this type of CPE was probably merged with professional education. Yet, the Rosstat methodology description provides no information on this change. The revealed increase in the percentage of workers covered by continuing professional development may also have to do with some specific aspects of calculation. In particular, the Rosstat methodology did not take into account continuing professional development of blue-collar workers in 2010, while the 2013 survey collected data on this type of CPE from all categories of workers.

Conclusion For the last few decades, Russian and foreign researchers have been trying to systematize theoretical and empirical findings on continuing education, including CPE, but a consistent approach has not been developed so far. Hence the challenge: to choose the right indicators

in order to compare the rates of participation in continuing education as such and CPE in particular.

Analysis of statistical and sociological data reveals that percentages of workers covered by continuing education (including CPE) vary a lot across age cohorts and professional categories, and even more so across industries. Industry-specific characteristics of professional growth among Russian employees manifest themselves most strongly in the indices provided by Rosstat. In particular, over 20% of managers and specialists in healthcare and education engage in CPE annually thanks to government regulation of professional training processes in these industries. The CPE organization also has some specific features in telecommunications agencies, where semi-professionals tend to be the most covered category. Industry-specific characteristics of professional education should be considered when exploring the national CPE system.

Due to the data collection methods used by Rosstat, its indices do not present a true picture of CPE participation rates. Only large and medium-sized enterprises are covered by statistics, while the industries largely represented by small businesses are left underestimated. In addition, the official statistics are unable to embrace the diversity of CPE types and forms, so these problems should be solved through empirical studies.

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