



Ministry of Science  
and Higher Education of the Russian Federation



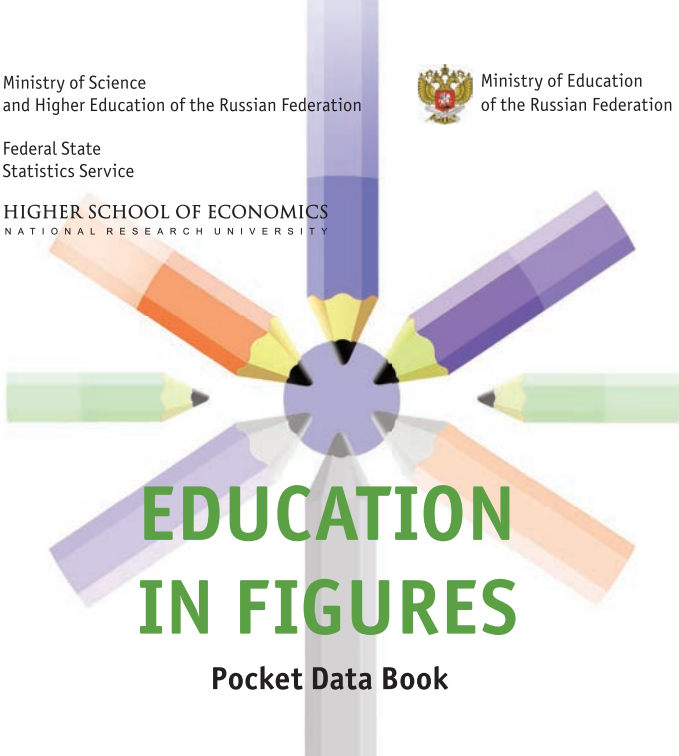
Ministry of Education  
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Federal State  
Statistics Service



HIGHER SCHOOL OF ECONOMICS  
NATIONAL RESEARCH UNIVERSITY



# EDUCATION IN FIGURES

Pocket Data Book



Ministry of Science  
and Higher Education of the Russian Federation



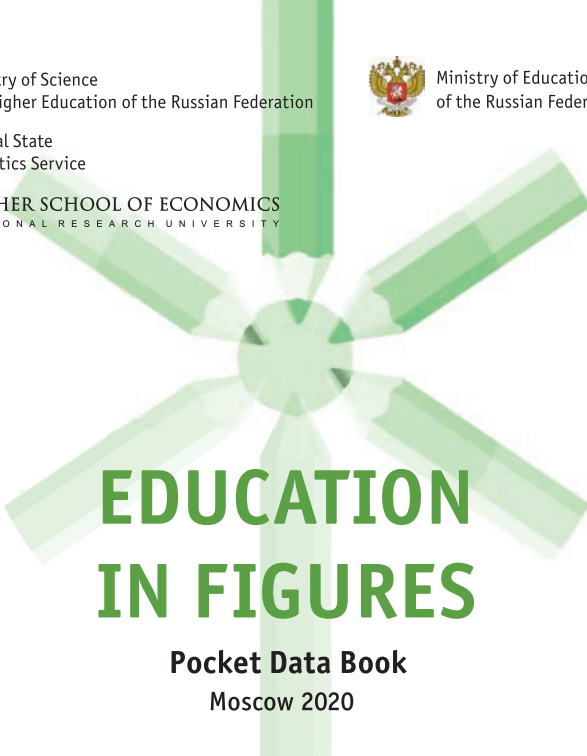
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of the Russian Federation



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NATIONAL RESEARCH UNIVERSITY



# EDUCATION IN FIGURES

**Pocket Data Book**

Moscow 2020

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ББК 74(2Рос)я2  
Е25

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The pocket data book contains main indicators characterizing trends in the development of general, secondary vocational, higher education as well as vocational training and additional education in the Russian Federation. It also covers key education indicators for the OECD countries. The data book includes information of the Federal State Statistics Service, the Ministry of Education of the Russian Federation, the Ministry of Science and Higher Education of the Russian Federation, the Federal Treasury, the Organisation for Economic Co-operation and Development (OECD), as well as results of own methodological and analytical studies of the HSE Institute for Statistical Studies and Economics of Knowledge.

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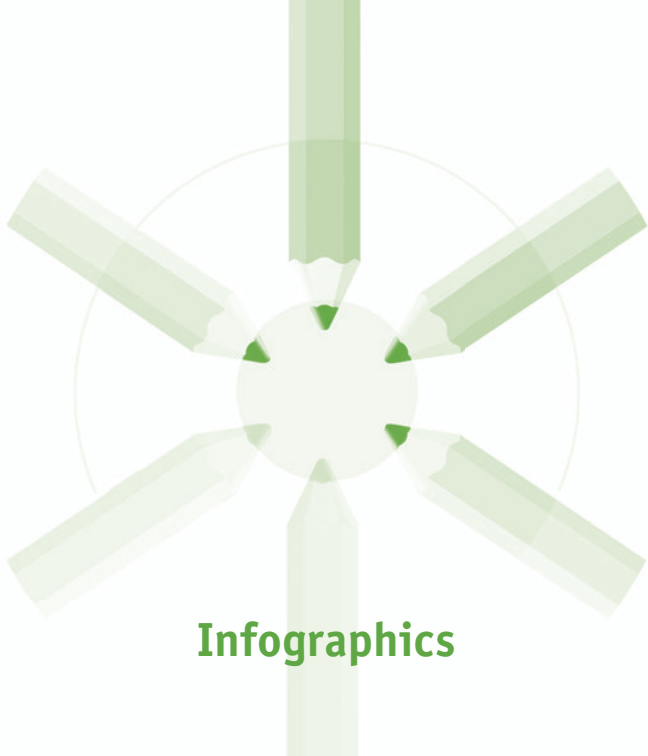
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**Symbols used in tables are:**

- ... data not available  
and not included in the totals,
- data not applicable.

In some tables, details may not add to the totals  
because of rounding.

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**Infographics**

## PRESCHOOL EDUCATION INCLUDING BABY AND CHILD CARE\*

Children – total

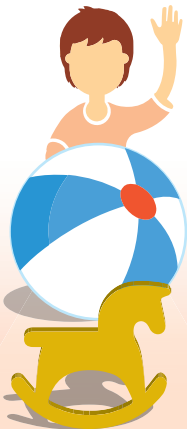
**7.5** million  
persons

105 persons per 100 places

Educators – total

**533.8** thousand  
persons

Of whom having higher  
and secondary vocational  
pedagogical education  
99.1%



Institutions – total\*\*

**52.0** thousand

Of which preschool  
education institutions

**37.3** thousand

Buildings having  
all kinds of amenities  
92.1%

Newly commissioned places

**40.8** thousand

\*Data refers to 2017.

\*\*Including territorially  
separated subdivisions  
(branches).

## PRIMARY, BASIC AND SECONDARY GENERAL EDUCATION

Students – total

**16.1** million persons

Teaching staff – total

**1.1** million persons

Of whom having higher and secondary vocational pedagogical education  
95.6%

Institutions – total

**41.3** thousand

Newly commissioned places

**102.1** thousand



Technical state and amenities of buildings\*

**97.5** %

Sewerage system

**91.1** %

Central heating

**36.1** %

Access for disabled

\*Data refers to 2017.

## SECONDARY VOCATIONAL EDUCATION

Institutions – total\*

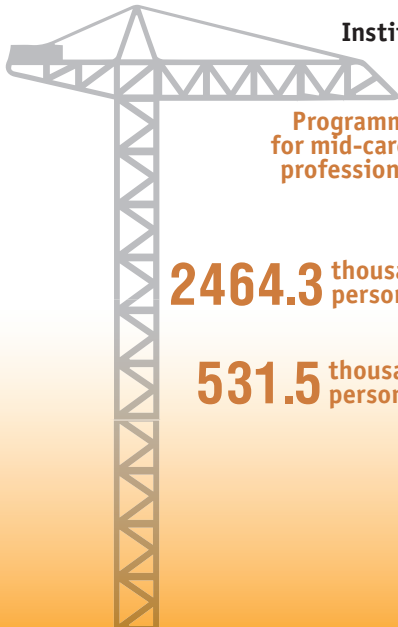
4711

Programmes  
for mid-career  
professionalsProgrammes for skilled  
workers, junior  
technicians and  
employees

Students

2464.3 thousand  
persons542.1 thousand  
persons

Graduates

531.5 thousand  
persons168.6 thousand  
persons

**Having received the specialities in the fields of:**

engineering and construction technology  
computer science and engineering  
engineering and technology land transport  
economics and administration  
science of law

**227.1 thousand persons**  
42.7%

**Having received the occupations in the fields of:**

engineering and technology land transport  
industrial ecology and biotechnology  
mechanical engineering  
engineering and construction technology

**101.7 thousand persons**  
60.3%

\* Including territorially separated subdivisions (branches).



## HIGHER EDUCATION

Programmes of:  
bachelor  
specialist  
master

Institutions – total

741

1223

Postgraduate  
courses

Students

4161.7 thousand  
persons

90.8 thousand  
persons

Graduates

660.9 thousand  
persons  
70.8%

933.2  
thousand  
persons

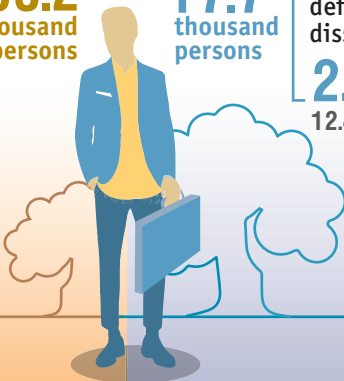
17.7  
thousand  
persons

Of whom with  
defended  
dissertation

2.2 thousand  
persons  
12.4%

101.8 thousand  
persons  
10.9%

170.4 thousand  
persons  
18.3%



## VOCATIONAL TRAINING\*

Institutions – total\*\*

**4799**

Having completed  
the training

**1706**  
thousand  
persons

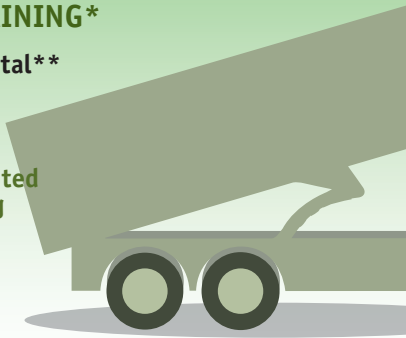


**Vocational training  
for skilled workers,  
junior technicians  
and employees**

**1046.9** thousand  
persons  
61.4%

**Retraining  
for skilled workers,  
junior technicians  
and employees**

**248.6** thousand  
persons  
14.6%



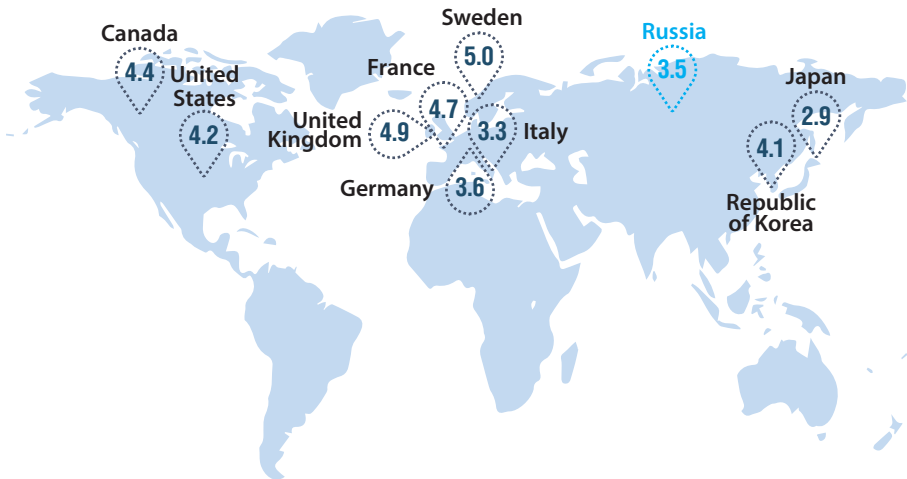
**Upgrading  
of professional skills  
for skilled workers,  
junior technicians  
and employees**

**410.6** thousand  
persons  
24.1%

\*Data refers to 2017.

\*\*Including territorially separated subdivisions (branches).

## PUBLIC EXPENDITURE ON EDUCATION AS A PERCENTAGE OF GDP BY COUNTRY





## **Educational Attainment of the Population**

### 1.1. Educational attainment of the adult population: 2015\*

*(per 1000 inhabitants in the given age group who indicated their educational attainment)*

	All population aged 25–64	Male	Female
Education attained:			
higher	304	264	339
incomplete higher	21	23	19
secondary vocational:			
programmes for mid-career professionals	347	331	361
programmes for skilled workers, junior technicians and employees	102	125	82
secondary general	168	187	152
basic general	52	63	43
primary general	4	5	3
No primary education	2	2	2

\* According to the 2015 microcensus of the Russia's population.

## 1.2. Adult population having attained basic general and lower education (ISCED 0, 1 and 2)

by country: 2017

*(as a percentage of the total population in the respective age group)*

	All population aged 25–64	Population aged 25–34
<b>Russia*</b>	5.8	5.5
Canada	8.9	6.5
France	21.6	13.8
Germany	13.5	13.1
Italy	39.1	25.2
Japan	...	...
Republic of Korea	12.4	2.0
Sweden	17.0	17.0
United Kingdom	18.8	12.5
United States	9.3	7.9

\* According to the 2015 microcensus of the Russia's population.

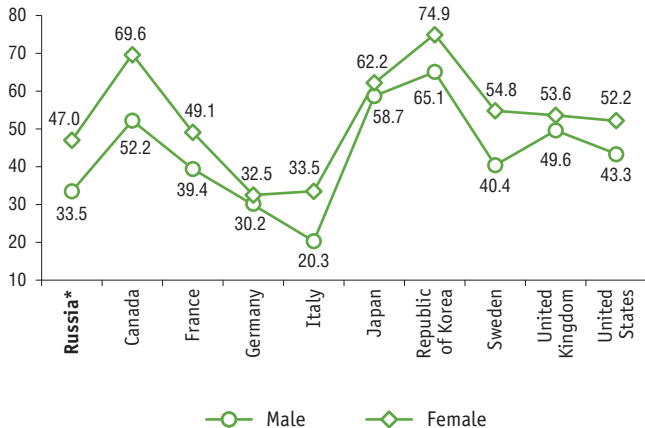
### 1.3. Adult population having attained higher education (ISCED 6, 7 and 8) by country: 2017

*(aged 25–64; as a percentage of the total population  
in the given age group)*

	All population aged 25–64	Population aged 25–34
<b>Russia*</b>	30.2	40.3
Canada	31.2	60.9
France	21.0	44.3
Germany	28.0	31.3
Italy	18.7	26.8
Japan	30.2	60.4
Republic of Korea	34.2	69.8
Sweden	32.2	47.4
United Kingdom	35.7	51.6
United States	35.5	47.8

\* According to the 2015 microcensus of the Russia's population.

### 1.4. Population aged 25–34 having attained higher education (ISCED 6, 7 и 8) as a percentage of the total population in the given age group by gender and country: 2017



\* According to the 2015 microcensus of the Russia's population.



## 1.5. Enrolment of the population aged 5–29 by country: 2017\*

(per cent)

	Enrolment of the population aged, years		
	5–14	15–19	20–29
<b>Russia*</b>	97.6	88.0	18.7
Canada	100	78.4	21.6
France	99.1	85.3	21.4
Germany	98.1	86.2	33.3
Italy	97.6	83.4	22.0
Japan	100	...	...
Republic of Korea	97.5	86.9	30.3
Sweden	99.0	87.5	34.4
United Kingdom	98.5	85.3	23.6
United States	99.2	82.5	24.5

\* Data for the OECD countries refers to 2016 or the nearest years.

\*\* Estimates of the Institute for Statistical Studies and Economics of Knowledge, National Research University Higher School of Economics.



2

Funding

## 2.1. Public expenditure on education

(billion roubles)

	2000	2005	2010	2016	2017	2018*
<b>Consolidated budget of the Russian Federation and budgets of state extra-budgetary funds:</b>						
at current prices	214.7	801.8	1893.9	3103.1	3264.2	3668.6
at constant 2017 prices	1424.6	2419.2	3173.6	3269.4	3264.2	3326.1

\* Preliminary data here and below (2.2.–2.5).

## 2.2. Public expenditure on education by level of the budget system

	2000	2005	2010	2016	2017	2018
<b>Federal budget:</b>						
billion roubles	38.1	162.1	442.8	597.8	615.0	722.6
as a percentage of the federal budget expenditure	3.7	4.6	4.4	3.6	3.7	4.3
<b>Consolidated budgets of Russian regions:</b>						
billion roubles	176.6	628.6	1450.9	2546.9	2690.1	3015.6
as a percentage of the expenditures of consolidated budgets of Russian regions	17.1	21.4	21.9	25.6	24.9	25.4

## 2.3. Public expenditure on education by section of the budget expenditure classification

(billion roubles)

	2000	2005	2010	2016	2017	2018
<b>Consolidated budget of the Russian Federation and state extra-budgetary funds</b>	<b>214.7</b>	<b>801.8</b>	<b>1893.9</b>	<b>3103.1</b>	<b>3264.2</b>	<b>3668.6</b>
Preschool education	32.0	113.0	321.3	679.0	722.5	841.4
General education	107.9	356.0	827.4	1488.4	1329.5	1471.7
Additional education for children*	–	–	–	–	237.7	251.0
Lower vocational education**	13.4	39.4	61.7	–	–	–
Secondary vocational education	10.2	43.3	102.1	199.8	212.0	251.6
Vocational training, retraining and upgrading of professional skills***	1.4	6.7	13.2	21.0	23.9	33.0
Higher education****	24.4	125.9	377.8	505.3	511.0	554.2
Youth policies and children's rehabilitation and recovery	...	24.8	49.5	65.1	68.5	72.8
Applied research in education	...	1.8	15.7	11.8	12.9	14.6
Other issues in the field of education*****	25.4	90.8	125.1	132.9	146.3	178.4

\* Until 2017, the expenses were included in the subsection 'General education' of the budget expenditure classification.

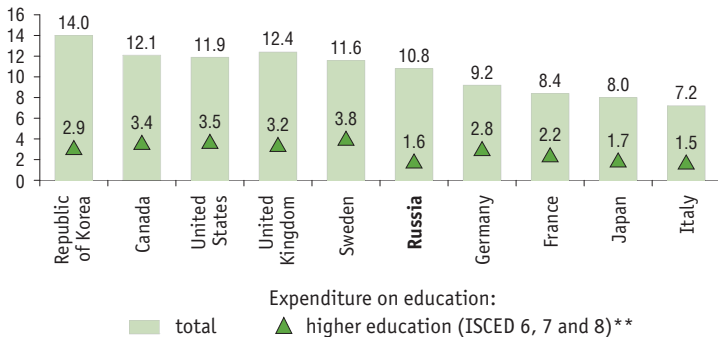
\*\* In 2014, the expenses were included in the section 'Secondary vocational education' of the budget expenditure classification.

\*\*\* In 2000, 2005 – section 'Retraining and upgrading of professional skills' of the budget expenditure classification.

\*\*\*\* 2000, 2005 – section 'Higher education'; 2010, 2016 – section 'Higher and postgraduate education'.

\*\*\*\*\* In 2000 – section 'Other expenditure on education' of the budget expenditure classification.

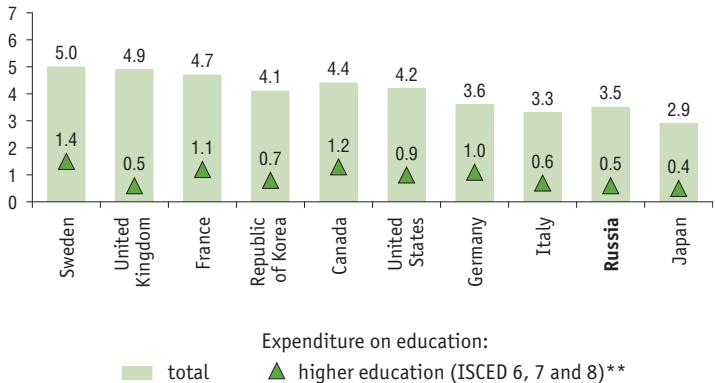
## 2.4. Public expenditure on education as a percentage of total public expenditure by country: 2018\*



\* Data for the OECD countries refers to 2015; expenditure includes the education from primary general to higher (ISCED 1–8); including state subsidies for households within the educational institutions' funds (for Germany, Canada and Japan – without state subsidies to households); data for Russia includes expenditure from the consolidated budget and state extra-budgetary funds.

\*\* Data for the OECD countries includes expenditure on R&D. Data for the United States and the United Kingdom includes expenditure on ISCED 5; for Japan – partly on ISCED 4.

## 2.5. Public expenditure on education as a percentage of GDP by country: 2018\*

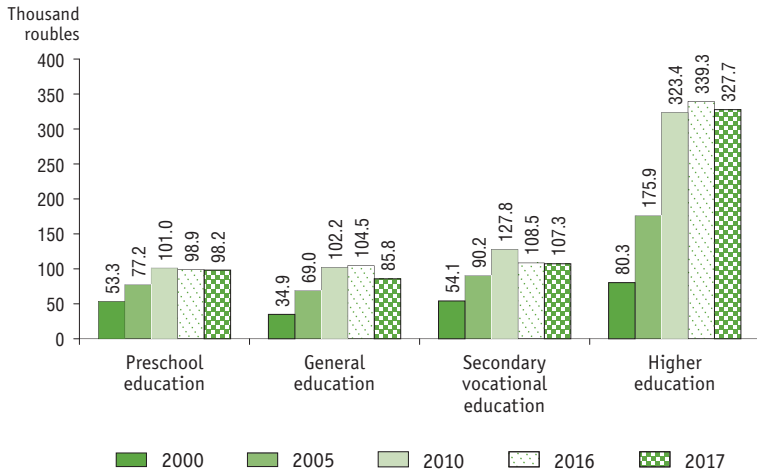


\* Data for the OECD countries refers to 2015; expenditure includes the education from primary general to higher (ISCED 1–8); including state subsidies for households within the educational institutions' funds (for Germany, Canada and Japan – without state subsidies to households); data for Russia includes expenditure from the consolidated budget and state extra-budgetary funds.

\*\* Data for the OECD countries includes expenditure on ISCED 5, for Japan – partly on ISCED 4.

## 2.6. Public expenditure on education per student by section of the budget expenditure classification

(at constant 2017 prices)



## 2.7. Paid services in the education system\*

	2000	2005	2010	2016	2017
Paid services:					
million roubles	41530	152670	326100	567312	613294
as a percentage:					
of the previous year, <i>in comparable prices</i>	121.7	107.7	99.1	98.0	102.3
of all paid services rendered to the population	6.9	6.7	6.6	6.6	6.7
Paid services per capita, <i>roubles</i>	285	1064	2283	3868	4177

\* Taking estimates of the shadow activities into account.



## 2.8. Household expenditure on paid educational services\*

	2000	2005	2010	2016	2017
Expenditure on paid educational services per one household member a year, <i>roubles</i>	137	931	1583	1591	1544
By level of education, <i>per cent</i> :					
preschool and primary general	2.4	11.8	5.7	12.0	15.6
secondary general**	34.2	8.6	11.7	19.0	17.6
secondary vocational – programmes for mid-career professionals	–	10.4	6.9	7.3	10.3
higher – bachelor, specialist and master programmes	52.2	64.9	69.4	48.3	47.1
not determined by level	11.2	4.3	6.3	13.4	9.5
As a percentage:					
of consumer expenditure	1.0	1.8	1.3	0.8	0.8
of expenditure on paid personal services	7.2	7.8	4.9	3.0	2.8

\* Based on the data of sample surveys of household budgets.

\*\* In 2000 – including expenditure on vocational education.

## 2.9. Average consumer prices for educational services (at the end of the year; roubles)

	2000	2005	2010	2016	2017	2018
Visiting a day nursery-kindergarten, <i>per day</i>	9.19	26.53	54.86	93.12	97.94	101.56
Additional studies for preschool children, <i>per academic hour</i>	...	...	...	...	187.16	195.89
Studying at private general education institutions, <i>per month*</i>	1703.76	4168.46	9420.77	16276.20	17425.56	20134.79
Additional studies at state and municipal full-time general education institutions, <i>per academic hour</i>	...	...	79.08	130.03	137.08	140.91
Studying at secondary vocational education institutions, <i>per semester</i>	4232.07	8672.05	13981.85	28439.73	29992.16	31476.27

(continued)

	2000	2005	2010	2016	2017	2018
Studying at state and municipal higher education institutions, <i>per semester</i>	7033.69	16026.90	25520.38	51533.32	57702.90	68260.10
Studying at private higher education institutions, <i>per semester</i>	8310.66	15153.15	22983.61	40774.14	47292.17	51334.99
Studying at foreign languages courses, <i>per academic hour</i>	31.09	72.24	148.21	266.64	277.15	281.33
Studying at professional training courses, <i>per academic hour</i>	21.87	49.60	82.21	125.46	133.23	138.15
Taking an introductory driving course, <i>per course</i>	...	...	17725.13	26459.58	25388.78	26077.91

\* In 2000, 2005 – studying at secondary general education institutions.



**Institutions Engaged  
in Educational Activities**

**3.1. Institutions engaged in educational activities  
within educational programmes of preschool education,  
baby and child care\***  
*(at the end of the year)*

	2014	2015	2016	2017
Preschool education institutions	41322	39533	38362	37346
Separate subdivisions (branches) of preschool education institutions	1100	1148	1357	1455
Separate subdivisions (branches) of general education institutions	1808	2065	2215	2157
Separate subdivisions (branches) of vocational education institutions and higher education institutions**	15	18	23	26
Institutions with subdivisions (groups) engaged in educational activities within educational programmes of preschool education, baby and child care:				
general education institutions	9440	10333	10736	10646
vocational education institutions and higher education institutions**	10	26	25	24
educational institutions for additional education	87	91	92	66
other institutions	120	132	155	286

\* Including those under capital repair.

\*\* 2014 – excluding vocational education institutions.

### 3.2. Institutions engaged in educational activities within educational programmes of primary general, basic general and secondary general education\*

*(at the beginning of the academic year)*

	2000/01	2005/06	2010/11	2016/17	2017/18	2018/19
<b>Total</b>	<b>68804</b>	<b>63174</b>	<b>50793</b>	<b>42621</b>	<b>41958</b>	<b>41349</b>
State and municipal institutions	68169	62448	50128	41804	41103	40498
Urban area	22694	21743	19505	17280	17111	17004
Rural area	45475	40705	30623	24524	23992	23494
Private institutions	635	726	665	817	855	851
Urban area	...	...	620	723	763	763
Rural area	...	...	45	94	92	88

\* Including those under capital repair.

### 3.3. Institutions engaged in educational activities within educational programmes of secondary vocational education\*

*(at the beginning of the academic year)*

	2017/18	2018/19
Vocational education institutions – total	3316	3311
State and municipal institutions	2999	2967
Private institutions	317	344
Separate subdivisions (branches) of vocational education institutions – total	599	609
State and municipal institutions	526	536
Private institutions	73	73
Higher education institutions –total	366	348
State and municipal institutions	288	289
Private institutions	78	59
Separate subdivisions (branches) of higher education institutions – total	473	443
State and municipal institutions	405	383
Private institutions	68	60

\* Without vocational education institutions within the Federal Service of Execution of Penishments.

### 3.4. Higher education institutions\*

(at the beginning of the academic year)

	2000/01	2005/06	2010/11	2016/17	2017/18	2018/19
<b>Total</b>	<b>965</b>	<b>1068</b>	<b>1115</b>	<b>818</b>	<b>766</b>	<b>741</b>
State and municipal institutions	607	655	653	502	500	496
Private institutions	358	413	462	316	266	245

\* Since 2016/17 academic year – including research institutes implementing master programmes.

### 3.5. Institutions engaged in highly qualified personnel training at postgraduate courses

(at the end of the year)

	2000	2005	2010	2016	2017	2018
<b>Total</b>	<b>1362</b>	<b>1473</b>	<b>1568</b>	<b>1359</b>	<b>1284</b>	<b>1223</b>
Research institutes	797	833	809	733	670	618
Higher education institutions	565	640	748	611	599	585
Institutions for additional vocational education	...	...	11	15	15	14



### 3.6. Institutions engaged in educational activities within vocational training programmes

*(at the end of the year)*

	2016	2017
Separate subdivisions (branches) of higher education institutions	2682	2865
Institutions for additional education	141	50
Separate subdivisions (branches) of institutions for additional education	206	178
Institutions for additional vocational education	7	2
Separate subdivisions (branches) of institutions for additional vocational education	145	159
Other institutions*	82	80
Separate subdivisions (branches) of higher education institutions	142	109
Institutions for additional education	4	1
Separate subdivisions (branches) of institutions for additional education	797	731
Institutions for additional vocational education	25	21
Separate subdivisions (branches) of institutions for additional vocational education	591	603

\* Including separate subdivisions (branches).

### 3.7. Institutions for additional education engaged in educational activities within additional general education programmes for children

	2000	2005	2010	2016	2017
Institutions for additional education*	8699	8876	8539	14174	13409
Children and youth sports schools**	1709	1839	2210	2399	1617
Children's music, art, dance schools and schools of arts***	5823	5555	5370	5007	4955

\* According to the data of the Ministry of Education of the Russian Federation.

\*\* According to the data of the Ministry of Sport of the Russian Federation.

\*\*\* According to the data of the Ministry of Culture of the Russian Federation.

### 3.8. Institutions engaged in educational activities within additional vocational programmes

	2016	2017
Institutions for additional vocational education	2278	2194
Vocational education institutions	2254	2052
Higher education institutions	1162	1129
Research institutes	98	118
Other institutions	660	606



**4**

**Enrolment**

### 4.1. Enrolment by level of education and by country: 2017\*

(million persons)

	Total	Education			
		Preschool (ISCED 0)	Primary general (ISCED 1)	Basic, secondary general and secondary vocational – programmes for skilled workers, junior technicians and employees (ISCED 2, 3 and 4)	Secondary vocational – programmes for mid-career professionals – and higher (ISCED 5, 6, 7 and 8)
<b>Russia*</b>	31.5	7.5	7.0	10.2	6.7
Canada	7.1	...	2.3	...	1.6
France	15.4	2.6	4.3	6.1	2.5
Germany	16.8	3.1	2.9	7.8	3.0
Italy	10.8	1.6	2.8	4.6	1.8
Japan	20.5	2.9	6.6	7.2	3.8
Republic of Korea	11.1	2.0	2.7	3.2	3.2
Sweden	2.7	0.6	0.8	0.9	0.4
United Kingdom	17.0	2.2	4.7	7.6	2.4
United States	70.1	...	25.0	25.8	19.3

\* Data for the OECD countries refers to 2016 or the nearest years.

## 4.2. Enrolment in institutions engaged in educational activities within educational programmes of preschool education, baby and child care\* (at the end of the year)

	2000	2005	2010	2016	2017
Enrolment, <i>thousand persons</i>	4263.0	4530.4	5388.0	7342.9	7477.9
Urban area	3408.5	3611.0	4280.6	5856.3	5976.5
Rural area	854.5	919.4	1107.3	1486.6	1501.5
Of the total enrolment – girls	2013.0	2144.1	2607.0	3534.1	3597.3
Enrolment per 100 places, <i>headcount</i>	81	95	107	105	105
Urban area	88	102	113	108	109
Rural area	62	75	90	93	93
Number of children attending short-term groups, <i>thousand persons</i>	–	70.7	126.2	173.5	175.1

\* Including babies and children who receive care only; 2000,2005 and 2010 – preschool education institutions.

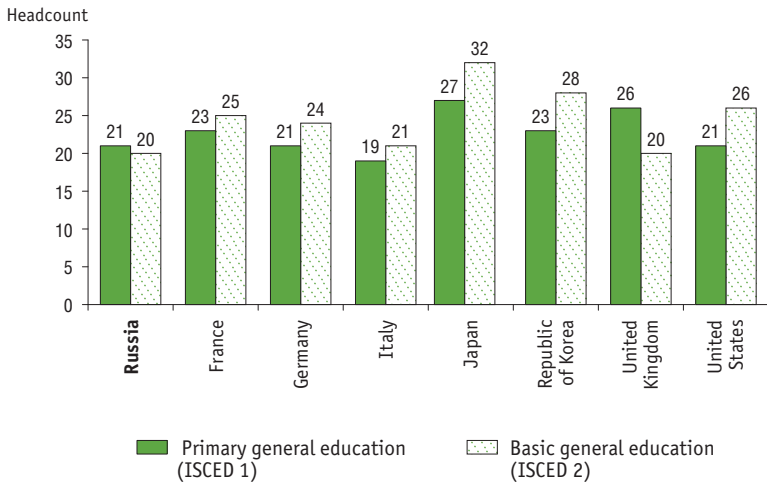
### 4.3. Primary general, basic general and secondary general education enrolment

(thousand persons)

	2000/01	2005/06	2010/11	2016/17	2017/18	2018/19
<b>Enrolment,</b>						
<i>at the beginning of the academic year</i>	<b>20553.5</b>	<b>15630.9</b>	<b>13642.4</b>	<b>15219.0</b>	<b>15705.9</b>	<b>16137.3</b>
State and municipal institutions	20492.9	15558.5	13568.9	15105.5	15587.6	16013.6
Urban area	14389.1	10844.7	9761.3	11316.4	11738.6	12120.5
Rural area	6103.8	4713.7	3807.6	3789.1	3848.9	3893.0
Private institutions	60.6	72.3	73.5	113.5	118.4	123.7
Urban area	...	...	68.8	101.0	106.9	112.1
Rural area	...	...	4.7	12.5	11.5	11.6
<b>Graduates having received certificate:*</b>						
of basic general education	<b>2199.5</b>	<b>1944.1</b>	<b>1354.1</b>	<b>1234.3</b>	<b>1283.0</b>	<b>1364.6</b>
of secondary general education	<b>1457.8</b>	<b>1466.0</b>	<b>789.3</b>	<b>635.2</b>	<b>621.2</b>	<b>647.5</b>

\* At the end of the years 2000, 2005, 2010, 2016, 2017 and 2018 respectively.

#### 4.4. Average class size by country: 2018\*



\* Data for the OECD countries refers to 2016 or the nearest years.



### 4.5. Training of skilled workers, junior technicians and employees\*

(thousand persons)

	2000	2005	2010	2016	2017	2018
<b>Enrolment, at the end of the year</b>	<b>1614.9</b>	<b>1445.5</b>	<b>938.4</b>	<b>547.6**</b>	<b>543.2**</b>	<b>542.1**</b>
Of whom female	639.2	537.1	339.7	171.2	166.8	163.6
<b>Entrants</b>	<b>764.5</b>	<b>614.7</b>	<b>504.1</b>	<b>208.0</b>	<b>205.5</b>	<b>207.1</b>
<b>Graduates</b>	<b>687.2</b>	<b>625.2</b>	<b>482.2</b>	<b>184.4</b>	<b>181.1</b>	<b>168.6</b>

\* Here and below (table 4.6) – without vocational education institutions within the Federal Service of Execution of Penishments.

\*\* At the beginning of the 2016/17, 2017/2018 and 2018/19 academic years.

## 4.6. Graduation of skilled workers, junior technicians and employees by fields of education and some enlarged groups of occupations

(thousand persons)

	2016	2017	2018
<b>Total</b>	<b>184.3</b>	<b>181.1</b>	<b>168.6</b>
Engineering, technology and technical sciences	139.7	138.3	129.2
Of which:			
engineering and construction technology	15.4	16.4	15.7
computer science and engineering	7.9	6.6	6.8
electric and heat power engineering	6.6	6.7	6.6
mechanical engineering	24.6	24.8	24.9
industrial ecology and biotechnology	33.6	32.8	27.9
engineering and technology land transport	36.6	36.3	33.2
Healthcare and medicine	1.5	1.3	1.4
Agriculture and agricultural sciences	19.7	18.6	17.6
Social sciences	19.1	19.2	16.7
Of which:			
economics and administration	8.3	7.7	6.2
service and tourism	9.5	10.2	9.7
Humanities	1.7	1.2	1.2
Arts and culture	2.6	2.6	2.5

## 4.7. Training of mid-career professionals

(thousand persons)

	2000/01	2005/06	2010/11	2016/17	2017/18	2018/19*
<b>Enrolment,</b>						
<i>at the beginning of the academic year</i>	<b>2360.8</b>	<b>2590.7</b>	<b>2125.7</b>	<b>2304.8</b>	<b>2387.7</b>	<b>2464.3</b>
Full-time	1721.5	1960.3	1578.2	1853.3	1935.2	2016.3
Part-time	93.4	70.7	54.3	52.1	53.4	56.2
Distant**	545.9	559.7	493.2	399.4	399.0	391.8
Of the total enrolment:						
female	1293.6	1327.0	1071.8	1148.5	1181.0	1221.3
students studying at institutions:						
state and municipal	2308.6	2473.0	2026.8	2137.0	2210.1	2265.4
private	52.2	117.7	98.9	167.7	177.6	198.9
<b>Entrants***</b>	<b>867.2</b>	<b>854.1</b>	<b>705.3</b>	<b>727.0</b>	<b>744.0</b>	<b>783.0</b>
<b>Graduates***</b>	<b>579.3</b>	<b>684.4</b>	<b>572.1</b>	<b>469.1</b>	<b>506.9</b>	<b>531.5</b>

\* Without vocational education institutions within the Federal Service of Execution of Penishments.

\*\* At the beginning of the 2010/11 academic year and earlier – including external studies.

\*\*\* At the end of the years 2000, 2005, 2010, 2016, 2017 and 2018 respectively.

## 4.8. Graduation of mid-career professionals by fields of education and some enlarged groups of occupations

(thousand persons)

	2016	2017	2018*
<b>Total</b>	<b>469.1</b>	<b>506.9</b>	<b>531.5</b>
Mathematics and natural sciences	0.3	0.2	0.2
Engineering, technology and technical sciences	200.0	211.0	223.2
Of which:			
engineering and construction technology	26.4	28.0	29.4
computer science and engineering	27.7	28.1	29.5
engineering and technology land transport	41.9	43.8	45.7
Healthcare and medicine	54.7	61.3	65.2
Agriculture and agricultural sciences	18.3	19.8	21.6
Social sciences	135.7	146.0	148.2
Of which:			
economics and administration	73.7	77.2	75.8
science of law	36.3	42.7	46.7
Education and pedagogics	29.2	35.0	37.6
Humanities	10.6	11.8	13.2
Arts and culture	20.4	21.8	22.3

\* Without vocational education institutions within the Federal Service of Execution of Penishments.

## 4.9. Students' enrolment and entrants: bachelor, specialist and master programmes

(thousand persons)

	2000/01	2005/06	2010/11	2016/17	2017/18	2018/19
<b>Enrolment,</b>						
<i>at the beginning of the academic year</i>	<b>4741.4</b>	<b>7064.6</b>	<b>7049.8</b>	<b>4399.5</b>	<b>4245.9</b>	<b>4161.7</b>
Full-time	2625.1	3508.0	3073.7	2403.0	2380.5	2369.8
Part-time	302.2	371.2	304.7	124.2	135.0	155.6
Distant*	1814.1	3185.4	3671.3	1872.3	1730.4	1636.3
Of the total enrolment:						
female	2686.3	4113.8	4030.1	2358.4	2279.6	2225.6
students studying at institutions:						
state and municipal	4270.8	5985.3	5848.7	3873.8	3823.1	3782.5
private	470.6	1079.3	1201.1	525.7	422.8	379.1
<b>Entrants**</b>	<b>1292.5</b>	<b>1640.5</b>	<b>1399.5</b>	<b>1157.8</b>	<b>1142.0</b>	<b>1147.9</b>

\* At the beginning of the 2010/11 academic year and earlier – including external studies.

\*\* At the end of the years 2000, 2005, 2010, 2016, 2017 and 2018 respectively.

*At the beginning of the 2018/19 academic year 2902.2 thousand students studied under the bachelor programmes, 723.3 thousand – under the specialist programmes, 536.2 thousand – under the master programmes.*

## 4.10. Entrants by fields of education: bachelor, specialist and master programmes

(thousand persons)

	2016	2017	2018
<b>Total</b>	<b>1157.8</b>	<b>1142.0</b>	<b>1147.9</b>
Mathematics and natural sciences	51.3	52.6	54.7
Engineering, technology and technical sciences	350.1	349.9	360.2
Of which:			
engineering and construction technology	41.9	41.1	40.8
computer science and engineering	47.5	45.2	56.4
engineering and technology land transport	37.5	35.2	36.2
Healthcare and medicine	54.9	57.1	60.3
Agriculture and agricultural sciences	45.5	45.6	48.5
Social sciences	460.6	438.9	418.8
Of which:			
economics and administration	247.6	190.0	225.2
science of law	137.2	137.4	113.6
Education and pedagogics	114.8	117.1	120.5
Humanities	50.2	51.2	54.4
Arts and culture	30.4	29.7	30.6

### 4.11. Graduates of bachelor, specialist and master programmes

(thousand persons)

	2000	2005	2010	2016	2017	2018
<b>Total</b>	<b>635.1</b>	<b>1151.7</b>	<b>1467.9</b>	<b>1161.1</b>	<b>969.5</b>	<b>933.2</b>
Incomplete higher professional education	2.4	4.3	8.0	–	–	–
Bachelor degree	70.9	84.5	126.6	762.6	732.6	660.9
Specialist degree	553.3	1051.8	1306.9	316.0	99.1	101.8
Master degree	8.4	11.1	26.3	82.5	137.8	170.4

### 4.12. Training of highly qualified personnel at postgraduate courses

(thousand persons)

	2000	2005	2010	2016	2017	2018
Postgraduate courses' enrolment, <i>at the end of the year</i>	117.7	142.9	157.4	98.4	93.5	90.8
Of whom female	51.8	61.8	72.8	47.2	44.0	41.0
Postgraduate courses' entrants	43.1	46.9	54.6	26.4	26.1	27.0
Postgraduate courses' graduates	24.8	33.6	33.8	26.0	18.1	17.7
Of whom with defended dissertation	7.5	10.7	9.6	3.7	2.3	2.2

*As of the end of 2018, 79.6 thousand students of postgraduate courses (87.6% of their total) studied at higher education institutions; of the end of 2017 – 82.6 thousand students (88.3 of their total).*

#### 4.13. Foreign students enrolment by country: programmes for mid-career professionals and higher education (ISCED 5, 6, 7 and 8): 2018\*

	Foreign students enrolment		Enrolment from Russia, <i>thousand persons**</i>
	Thousand persons	As a percentage of the total enrolment	
<b>Russia*</b>	278.0	4.1	–
Canada	432.0	18.1	4.0
France	244.6	8.0	9.7
Germany	92.7	5.1	2.2
Italy	189.5	11.9	1.7
Japan	61.9	1.9	0.4
Republic of Korea	971.4	5.0	5.2
Sweden	245.3	9.9	3.6
United Kingdom	28.0	6.6	0.4
United States	143.5	3.7	0.4

\* Data for the OECD countries refers to 2016 or the nearest years.

\*\* According to the data provided by recipient countries.



#### 4.14. Persons who have completed studying within vocational training programmes

	2016		2017	
	Thousand persons	Per cent	Thousand persons	Per cent
<b>Total</b>	<b>1612.7</b>	<b>100</b>	<b>1706.0</b>	<b>100</b>
Of whom within programmes:				
vocational training for skilled workers, junior technicians and employees	1030.9	63.9	1046.9	61.4
retraining for skilled workers, junior technicians and employees	214.1	13.3	248.6	14.6
upgrading of professional skills for skilled workers, junior technicians and employees	367.7	22.8	410.6	24.1

## 4.15. Enrolment in additional education institutions engaged in educational activities within additional general education programmes for children

*(thousand persons)*

	2000	2005	2010	2016	2017
Institutions for additional education engaged in educational activities within additional general education programmes for children*	7905.8	8443.7	8064.1	11079.9	10825.4
Children and youth sports schools**	866.2	1097.3	1455.7	1677.0	1136.0
Children's music, art, dance schools and schools of arts***	1284.5	1280.9	1433.0	1555.1	1596.4

\* According to the data of the Ministry of Education of the Russian Federation; since 2010 – including children studying in scientific societies.

\*\* According to the data of the Ministry of Sport of the Russian Federation.

\*\*\* According to the data of the Ministry of Culture of the Russian Federation.

#### 4.16. Persons who have completed studying within additional vocational programmes

	2016		2017	
	Thousand persons	Per cent	Thousand persons	Per cent
<b>Total</b>	<b>5287.2</b>	<b>100</b>	<b>5964.1</b>	<b>100</b>
Of whom within programmes:				
upgrading of professional skills	4749.6	89.8	5331.9	89.4
vocational retraining	537.6	10.2	632.2	10.6



**5**

**Personnel**

### 5.1. Number of students per one teacher by country: 2018\* (headcount)

	Primary general education (ISCED 1)	Basic, secondary general and secondary vocational education – programmes for skilled workers, junior technicians and employees (ISCED 2 and 3)	Secondary vocational – programmes for mid-career professionals – and higher education (ISCED 5, 6, 7 and 8)
	(1)	(2)	(3)
<b>Russia</b>	n(2)**	17	15
Canada	17***	12****	...
France	19	13	...
Germany	15	13	12
Italy	11	11	20
Japan	17	13*****	...
Republic of Korea	16	14	...

(continued)

	Primary general education (ISCED 1)	Basic, secondary general and secondary vocational education – programmes for skilled workers, junior technicians and employees (ISCED 2 and 3)	Secondary vocational – programmes for mid-career professionals – and higher education (ISCED 5, 6, 7 and 8)
	(1)	(2)	(3)
Sweden	13	13	10
United Kingdom	17	16	16
United States	15	15	14*****

\* Data for the OECD countries refers to 2016. Data for Russia refers to the teaching staff of institutions engaged in educational activities within educational programmes of primary, basic and secondary general education (ISCED 1, 2 and 3); the teaching staff of secondary vocational education institutions implementing programmes for mid-career professionals and the teaching staff of higher education institutions (ISCED 5, 6 and 7).

\*\* Data is included into the other column the number of which is indicated in brackets after 'n'.

\*\*\* Including ISCED 0 and ISCED 2 programmes.

\*\*\*\* Excluding ISCED 2 programmes.

\*\*\*\*\* Including ISCED 4 programmes.

## 5.2. Female proportion in the teaching staff total by country: 2018\*

(per cent)

	Primary general education (ISCED 1)	Basic general education (ISCED 2)	Secondary general education (ISCED 3)**	Secondary vocational – programmes for mid-career professionals – and higher education (ISCED 5, 6, 7 and 8)
	(1)	(2)	(3)	(4)
<b>Russia</b>	99.4	n(3)***	83.7	63.7
Canada	74.5****	n(1)***	74.5	49.0
France	83.2	59.8	59.2	44.4*****
Germany	87.1	66.7	56.0	39.1
Italy	95.9	77.1	71.4	37.0
Japan	64.8	42.4	30.0*****	26.8*****
Republic of Korea	78.1	69.9	52.8	34.9

(continued)

	Primary general education (ISCED 1)	Basic general education (ISCED 2)	Secondary general education (ISCED 3)**	Secondary vocational – programmes for mid-career professionals – and higher education (ISCED 5, 6, 7 and 8)
	(1)	(2)	(3)	(4)
Sweden	76.9	76.8	53.4	44.5
United Kingdom	84.7	64.3	64.4	44.8
United States	87.1	67.1	57.9	49.4*****

\* Data for the OECD countries refers to 2016. Data for Russia refers to the teaching staff of institutions engaged in educational activities within educational programmes of primary, basic and secondary general education (ISCED 1, 2 and 3); the teaching staff of secondary vocational education institutions implementing programmes for mid-career professionals and the teaching staff of higher education institutions (ISCED 5, 6 and 7).

\*\* For the OECD countries – ISCED 3 general programmes; for Canada, United States and Japan – all programmes (general and vocational).

\*\*\* Data is included into the other column the number of which is indicated in brackets after 'n'.

\*\*\*\* Including ISCED 0 programmes.

\*\*\*\*\* Including ISCED 4 programmes.



### 5.3. Educators at institutions engaged in educational activities within educational programmes of preschool education, baby and child care\*

(including senior educators; excluding persons employed on a plural basis and those working under civil law contracts; at the end of the year)

	2005**	2010	2016	2017
Educators, <i>thousand persons</i>	446.7	485.2	530.1	533.8
Of whom:				
having education:				
higher	116.4	173.2	255.6	264.7
secondary vocational pedagogical by programmes for mid-career professionals	278.4	261.2	253.4	264.3
female	...	483.2	527.6	532.1
persons aged under 30***	...	96.5	76.8	72.2
persons aged 55 and over***	...	58.7	77.3	79.5
Number of children per one educator, <i>headcount</i>	10	11	14	14

\* Data for 2005 and 2010 refers to preschool education institutions and structural subdivisions of general education institutions implementing preschool education programmes.

\*\* Taking persons employed on a plural basis into account.

\*\*\* Full years as of January 1.

## 5.4. Teaching staff at institutions engaged in educational activities within educational programmes of primary, basic and secondary general education

(excluding persons employed on a plural basis; at the beginning of the academic year; thousand persons)

	2011/12	2016/17	2017/18	2018/19
Teaching staff	1060.4	1074.1	1079.9	1082.8
Of whom those implementing educational programmes of primary general education	278.9	305.1	311.3	315.7
Of the teaching staff total:				
having education:				
higher	888.1	930.0	938.2	941.7
of whom pedagogical	841.9	891.7	904.4	910.9
secondary vocational by programmes for mid-career professionals	160.7	131.6	132.5	133.3
of whom pedagogical	140.8	119.9	122.0	123.8
female	930.6	912.6	953.3	955.6
persons aged under 35*	...	238.7	244.3	246.1
persons aged 55 and over**	210.0**	252.2	261.6	271.1

\* Full years as of January 1.

\*\* Persons of retirement age.

As of the beginning of 2018/19 academic year, the number of students per one teacher was 17.

## 5.5. Teachers at educational institutions engaged in educational activities within educational programmes of secondary vocational education\*

(at the beginning of the academic year; thousand persons)

	2016/17	2017/18	2018/19
Teachers (excluding persons employed on a plural basis and those working under civil law contracts)	134.6	137.0	139.0
Of whom:			
engaged in educational activities within programmes:			
for skilled workers, junior technicians and employees	21.0	21.0	22.0
for mid-career professionals	97.7	102.4	104.5
having higher education	130.1	132.5	134.0
female	105.2	106.6	107.9
persons aged under 35**	30.7	30.9	30.9
persons aged 60 and over**	27.9	28.9	29.5
Personnel employed on a plural basis	29.1	31.0	30.1
Of whom engaged in educational activities within programmes:			
for skilled workers, junior technicians and employees	2.0	1.9	1.8
for mid-career professionals	21.0	23.7	23.5

\* Without teachers of vocational education institutions within the Federal Service of Execution of Penishments.

\*\* Full years as of January 1.

## 5.6. Industrial training instructors at educational institutions engaged in educational activities within educational programmes of secondary vocational education\*

*(at the beginning of the academic year; thousand persons)*

	2016/17	2017/18	2018/19
Industrial training instructors (excluding persons employed on a plural basis and those working under civil law contracts)	25.6	25.0	24.0
Of whom:			
engaged in educational activities within programmes:			
for skilled workers, junior technicians and employees	18.2	17.4	16.9
for mid-career professionals	5.0	4.9	5.0
having higher education	12.1	12.2	11.9
female	13.1	12.7	11.8
persons aged under 35**	5.3	5.1	5.0
persons aged 60 and over**	4.8	4.3	4.4

(continued)

	2016/17	2017/18	2018/19
Personnel employed on a plural basis	0.4	0.4	0.4
Of whom engaged in educational activities within programmes:			
for skilled workers, junior technicians and employees	0.2	0.2	0.2
for mid-career professionals	0.1	0.2	0.1

\* Without teachers of vocational education institutions within the Federal Service of Execution of Penishments.

\*\* Full years as of January 1.

*As of the beginning of the 2018/19 academic year, the number of students studying within programmes for skilled workers, junior technicians and employees was 18 persons per one teacher and industrial training instructor; studying within programmes for mid-career professionals was 21 persons (at the beginning of the 2017/18 academic year – 21 and 23 persons respectively).*

## 5.7. Teaching staff at institutions engaged in educational activities within bachelor, specialist and master programmes

(at the beginning of the academic year)

	2017/18	2018/19
Teaching staff (excluding personnel employed on a plural basis), <i>thousand persons</i>	245.1	236.1
Of whom:		
engaged in educational activities within bachelor, specialist and master programmes	243.0	234.1
having scientific degree:		
doctor of science	37.8	36.6
candidate of science	140.5	135.6
PhD	0.6	0.7
having academic status:		
professor	25.9	24.6
assistant professor	90.3	88.0
female	139.9	134.8
persons aged under 30*	14.8	13.1
persons aged 60 and over*	69.5	67.8
Personnel employed on a plural basis, <i>thousand persons</i>	58.1	58.0
Of whom engaged in educational activities within bachelor, specialist and master programmes	56.7	56.7
Number of students per one teacher, <i>headcount</i>	11	12

\* Full years as of January 1.

## 5.8. Teaching staff at institutions engaged in educational activities within vocational training programmes

*(at the end of the year; thousand persons)*

	2017
Teaching staff (excluding personnel employed on a plural basis)	57.5
Of whom:	
having education:	
higher	42.9
secondary vocational by programmes for mid-career professionals	9.7
secondary vocational by programmes for skilled workers, junior technicians and employees	2.5
female	29.0
persons aged under 30*	5.7
persons aged 60 and over*	9.3
Personnel employed on a plural basis	12.1

\* Full years as of January 1.

## 5.9. Teaching staff at additional education institutions engaged in educational activities within additional general education programmes for children\*

*(at the end of the year; thousand persons)*

	2016	2017
Teaching staff (excluding personnel employed on a plural basis)	302.5	280.7
Of whom:		
having higher education	214.3	199.3
of whom pedagogical	172.6	164.4
having secondary vocational education by programmes for mid-career professionals	78.4	74.1
of whom pedagogical	58.9	58.0
having secondary vocational education by programmes for skilled workers, junior technicians and employees	2.5	1.9
female	201.2	192.5
persons aged under 35*	90.9	82.2
Personnel employed on a plural basis	97.0	88.7

\* According to the data of the Ministry of Education of the Russian Federation.

\*\* Full years as of January 1.



## 5.10. Teaching staff at institutions engaged in educational activities within additional vocational programmes

*(at the end of the year; thousand persons)*

	2016	2017
Teaching staff (excluding personnel employed on a plural basis)	51.5	47.9
Of whom:		
having higher education	50.0	46.7
having scientific degree:		
doctor of science	7.2	6.5
candidate of science	23.6	21.0
PhD	0.1	0.1
having academic status:		
professor	5.0	4.3
assistant professor	14.7	13.0
female	29.7	26.9
persons aged under 30*	4.0	3.3
persons aged 60 and over*	13.3	12.0
Personnel employed on a plural basis	25.6	21.0

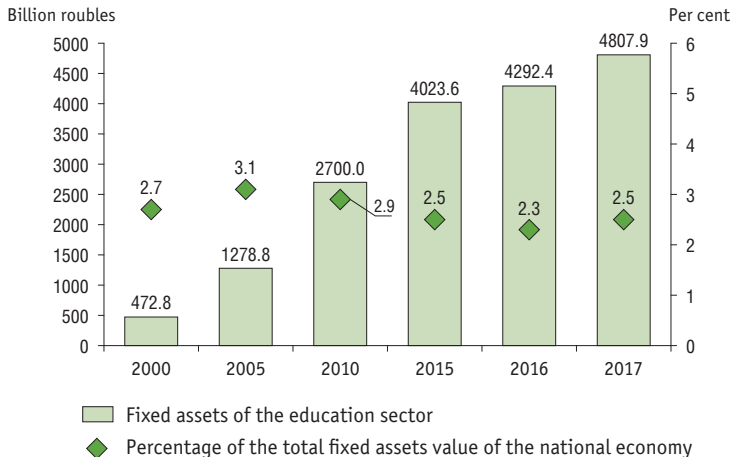
\* Full years as of January 1.



**6**

**Fixed Assets**

## 6.1. Fixed assets of the education sector\* (at the end of the year)



\* Data for 2000 is presented according to the Russian Classification of Economy Branches; for 2005–2016 – according to the ISIC/NACE-compatible Russian Classification of Economic Activities, for 2017 – according to the ISIC/NACE-compatible Russian Classification of Economic Activities (rev. 2).

## 6.2. Newly constructed premises of educational institutions

	2000	2005	2010	2016	2017	2018
Preschool education institutions, <i>thousand places</i>	6.8	5.0	22.9	63.3	40.8	55.8
General education institutions, <i>thousand pupil places</i>	133.8	73.0	67.8	90.3	108.4	102.1
Vocational education institutions, <i>thousand sq. m of the total floor of training and laboratory premises*</i>	...	...	...	7.0	32.3	4.0
Vocational education institutions engaged in educational activities within educational programmes of secondary vocational education – programmes for skilled workers, junior technicians and employees solely, <i>thousand pupil places</i>	0.6	0.3	1.2	–	–	–
Vocational education institutions engaged in educational activities within educational programmes of secondary vocational education – programmes for mid-career professionals, <i>thousand sq. m of the total floor of training and laboratory premises</i>	18.2	11.5	60.4	–	–	–
Higher education institutions, <i>thousand sq. m of the total floor of training and laboratory premises</i>	105.6	161.3	219.7	220.2	109.1	147.6

\* Newly constructed premises of vocational education institutions engaged in educational activities within educational programmes of secondary vocational education – programmes for skilled workers, junior technicians and employees, programmes for mid-career professionals are taken into account.

### 6.3. Technical state and amenities of preschool education institutions

(at the end of the year)

	2013	2014	2016*	2017*
<b>Buildings:</b>				
requiring capital repair, <i>thousand</i>	5.6	4.2	3.5	3.3
as a percentage of buildings total	10.6	8.2	7.1	6.9
being in the crash state, <i>thousand</i>	0.5	0.3	0.2	0.1
as a percentage of buildings total	0.9	0.5	0.3	0.3
Preschool education institutions the buildings				
of which have all kinds of amenities, <i>thousand</i>	40.8	40.1	37.3	34.3
as a percentage of institutions total	90.3	91.1	89.0	92.1

\* Including separate subdivisions (branches).

**6.4. The buildings of institutions engaged in educational activities  
within educational programmes of primary,  
basic, secondary general education: technical state,  
kinds of amenities and availability to disabled: 2017\***  
(at the end of the year)

	Total	State and municipal institutions	Private institutions
<b>Buildings:</b>			
requiring capital repair, <i>thousand</i>	8.1	8.0	0.1
as a percentage of buildings total	11.7	11.8	4.0
being in the crash state, <i>thousand</i>	0.6	0.6	0.0
as a percentage of buildings total	0.8	0.8	0.2
equipped with:			
water supply, <i>thousand</i>	61.3	60.2	1.2
as a percentage of buildings total	88.7	88.5	97.6
sewerage system, <i>thousand</i>	60.6	59.4	1.2
as a percentage of buildings total	87.6	87.5	97.5
central heating, <i>thousand</i>	62.7	61.6	1.1
as a percentage of buildings total	90.6	90.6	91.1
having unhindered access for disabled, <i>thousand</i>	28.5	28.1	0.4
as a percentage of buildings total	41.2	41.3	36.1

\* Including separate subdivisions (branches).

**6.5. Educational facilities of institutions engaged in educational activities within educational programmes of primary, basic, secondary general education\***  
*(at the end of the year; as a percentage of institutions total)*

	2016	2017
Institutions having:		
school hall	56.9	58.2
sports hall	88.3	89.0
dining hall	96.8	97.2
library	93.9	94.6
equipped classrooms for:		
foundations of computer science and computer engineering	90.6	91.0
physics	72.3	73.7
chemistry	71.3	72.8
biology	73.0	73.5
geography	66.6	67.5
foreign language	55.3	57.6
basics of life safety	51.8	52.8
extracurricular activities	36.8	37.8
workshops for labour training	69.5	69.4
classrooms for housekeeping	55.7	56.7

\* Including separate subdivisions (branches).

## 6.6. Availability of student dormitories

(at the end of the year)

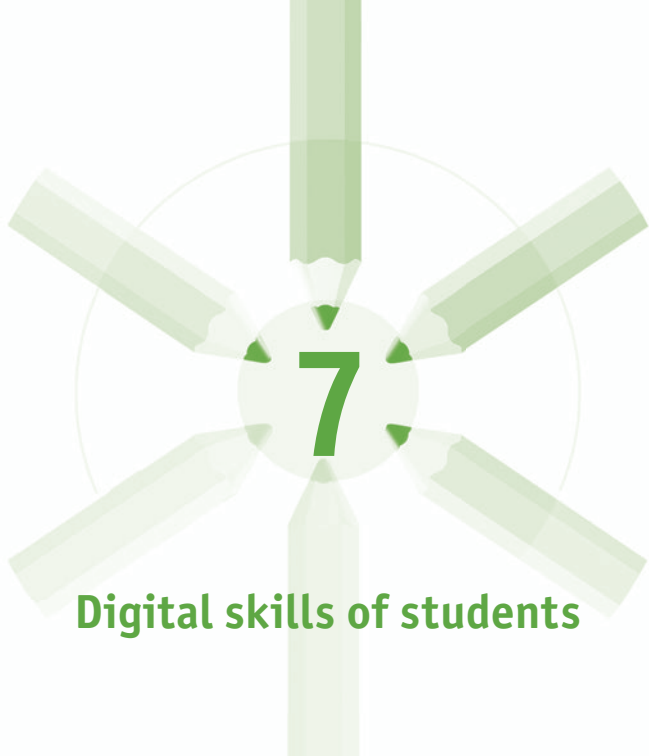
	2015	2016	2017
Number of students studying by programmes for skilled workers, junior technicians and employees who need a place in a dormitory, <i>thousand persons</i>	103.6	116.5	102.2
Of whom are living in dormitories, <i>per cent</i>	92.8	94.1	94.1
Number of students studying by programmes for mid-career professionals who need a place in a dormitory, <i>thousand persons</i>	311.4	332.8	349.3
Of whom are living in dormitories, <i>per cent</i>	90.8	91.9	90.9
Number of students studying by bachelor, specialist and master programmes who need a place in a dormitory, <i>thousand persons</i>	897.4	872.1	874.4
Of whom are living in dormitories, <i>per cent</i>	86.7	89.6	89.1



## 6.7. Number of personal computers used for teaching per 100 students of educational institutions: 2017

*(at the end of the year)*

	Personal computers used for teaching		
	total	within local area networks	with the internet access
Educational institutions engaged in educational activities within educational programmes of primary, basic, secondary general education	13.9	7.6	10.1
Educational institutions engaged in educational activities within educational programmes of secondary vocational education	15.7	12.1	12.7
Higher education institutions	23.4	21.0	21.1



**Digital skills of students**

## 7.1. Students' software-related skills by the level of educational programme and region: 2017\*

(per cent)

	Secondary vocational education			Higher education**		
	On average	Urban area	Rural area	On average	Urban area	Rural area
<b>Software-related skills***</b>	<b>83</b>	<b>86</b>	<b>76</b>	<b>89</b>	<b>91</b>	<b>83</b>
Of which:						
working with a text editor	77	81	68	84	86	74
using spreadsheet software (filtering, sorting, using formulas, creating charts, etc.)	50	55	39	62	65	48
creating presentations using specialized software (Power Point, etc.)	32	35	24	40	43	29
using software to edit photos, video or audio files	43	46	37	51	53	42
developing software with the use of programming languages	2	3	1	4	5	3

\* For 12 months prior to the survey.

\*\* Here and below – bachelor, specialist and master programmes.

\*\*\*Demonstrating at least one of the listed skills.

## 7.2. Students' skills in using digital equipment by the level of educational programme and region: 2017\*

(per cent)

	Secondary vocational education			Higher education		
	On average	Urban area	Rural area	On average	Urban area	Rural area
<b>Skills in using digital equipment**</b>	<b>57</b>	<b>53</b>	<b>47</b>	<b>66</b>	<b>69</b>	<b>53</b>
Of which:						
transferring files between computer and peripheral devices (digital camera, player, mobile phone)	48	52	39	56	58	44
connecting and installing new devices	19	21	13	25	26	17
changing software settings	6	7	3	9	10	5
installing or reinstalling an operating system	5	6	4	8	9	6
downloading software (other than computer games)	15	16	10	20	21	13

\* For 12 months prior to the survey.

\*\* Demonstrating at least one of the listed skills.

### 7.3. Students' communication skills within the digital environment and skills in working with digital information by the level of educational programme and region: 2017\*

(per cent)

	Secondary vocational education			Higher education		
	On average	Urban area	Rural area	On average	Urban area	Rural area
<b>Communication skills within the digital environment**</b>	<b>74</b>	<b>79</b>	<b>63</b>	<b>85</b>	<b>87</b>	<b>75</b>
Of which:						
sending/receiving e-mails	42	46	31	61	64	47
telephoning / video calls over the internet (using Skype or other applications)	53	58	42	64	66	55
uploading self-created content (text, photos, music, videos, software, etc.) to websites, social networks, and cloud storages to be shared	41	45	32	49	51	37

(continued)

	Secondary vocational education			Higher education		
	On average	Urban area	Rural area	On average	Urban area	Rural area
<b>Skills in working with digital information**</b>	<b>42</b>	<b>46</b>	<b>33</b>	<b>55</b>	<b>57</b>	<b>46</b>
Of which:						
searching for information about goods and services	39	43	30	52	54	42
searching for health-related information	13	13	11	19	19	16

\* For three months prior to the survey.

\*\* Demonstrating at least one of the listed skills.

## 7.4. Digital skills of students and employed population: 2017

(per cent)

	Students		Employed population*	
	Secondary vocational education	Higher education	Mid-career professionals	Highly qualified professionals
Software-related skills**	83	89	70	86
Skills in using digital equipment***	57	66	44	54
Communication skills within the digital environment****	74	85	70	81
Skills in working with digital information*****	42	55	64	69

\* Aged 25–64.

\*\* Demonstrating at least one of the activities: working with a text editor; using spreadsheet software; creating presentations using specialized software; using software to edit photos, video or audio files; developing software with the use of programming languages for 12 months prior to the survey.

\*\*\* Demonstrating at least one of the activities: transferring files between computer and peripheral devices; connecting and installing new devices; changing software settings; installing or reinstalling

an operating system; downloading software (other than computer games) for 12 months prior to the survey.

\*\*\*\* Demonstrating at least one of the activities: sending/receiving e-mails; telephoning / video calls over the internet; uploading self-created content to websites, social networks, and cloud storages to be shared for three months prior to the survey.

\*\*\*\*\* Searching for information about goods and services or searching for health-related information for three months prior to the survey.



## 7.5. Basic and advanced digital skills of students: 2017

(per cent)

	Secondary vocational education	Higher education
Using the whole set of basic skills in:		
working with software*	17	24
working with specialized office software**	25	33
communication within the digital environment***	18	27
working with digital information****	10	16
Using some of advanced skills*****	29	39

\* Demonstrating all the listed activities: working with a text editor; using spreadsheet software; creating presentations using specialized software; using software to edit photos, video or audio files; developing software with the use of programming languages for 12 months prior to the survey.

\*\* Demonstrating all the listed activities: transferring files between computer and peripheral devices; connecting and installing new devices; changing software settings; installing or reinstalling an operating system; downloading software (other than computer games) for 12 months prior to the survey.

\*\*\* Demonstrating all the listed activities: sending/receiving e-mails; telephoning / video calls over the internet; uploading self-created content to websites, social networks, and cloud storages to be shared for three months prior to the survey.

- \*\*\*\* Demonstrating all the listed activities: searching for information about goods and services; searching for health-related information for three months prior to the survey.
- \*\*\*\*\* Demonstrating at least one of the activities: developing software with the use of programming languages; connecting and installing new devices; changing software settings; installing or reinstalling an operating system; downloading software (other than computer games) for 12 months prior to the survey.

## 7.6. Using the internet for educational purposes by students: 2017\*

(per cent)

	Secondary vocational education			Higher education		
	On average	Urban area	Rural area	On average	Urban area	Rural area
Consulting wikis (Wikipedia, online encyclopedias, etc.)	59	64	45	68	72	49
Reading or downloading online newspapers/magazines/e-books	26	30	17	38	41	26
Searching for information about education, educational courses, trainings, etc.	26	28	21	33	35	26
E-learning	8	10	5	13	14	9
Participating in professional networks (E-xecutive.ru, etc.)	2	2	1	3	3	3

\* For three months prior to the survey.

## 7.7. Internet activities of students in Russia and the OECD countries: 2017\*

(per cent)

	Russia	The OECD countries**	Of which			
			Finland	Germany	Italy	Bulgaria
Sending/receiving e-mails	55	88	99	93	76	84
Participating in social networks	88	88	96	86	80	94
Participating in professional networks (E-xecutive.ru, etc.)	3	16	21	13	13	4
Searching and applying for a job	14	27	68	39	17	14
E-learning	12	13	51	9	7	9
Searching for information about goods and services	48	76	94	88	51	65
Internet banking	23	44	79	42	24	3

\* For three months prior to the survey.

\*\* For the OECD countries – students aged 15 and above.

## Technical Notes

The information about **public expenditure on education** is based on annual reports about implementation of the consolidated budget of the Russian Federation and state extra-budgetary funds by section 0700 'Education'.

**The amount of paid services rendered to the population in the education system** is the monetary equivalent of the following services: children education including preschool education, training on a fee basis at educational institutions of all forms of ownership, at paid courses, in sections, study (hobby) groups, studios at educational institutions, services of private tutors, and other services in the education system. This index is calculated using the data from federal statistical surveys and evaluation of non-observed activities in the services market (until 2013 – using the procedure approved by the decree № 15 of the State Statistics Committee of Russia on February 25, 2000, since 2013 – using the methodology approved by the Order № 234 of the Federal State Statistics Service on June 26, 2013, since 2017 – using the methodology approved by the Order № 643 of the Federal State Statistics Service on September 29, 2017).

**Average prices for the Russian Federation** are calculated as weighted average of prices in the regions of the Russian Federation.

**Average class size** is determined as the ratio of the number of students in a certain group of classes to the number of classes in this group; a set of classes ( students from two or more classes taught by one teacher at a small school) is considered as one class.

**Digital skills of students and employed population** are assessed with the results from the annual federal statistical survey on the usage of information technology and informa-

tion and telecommunications networks by population and the federal statistical survey on labour force. The surveys are conducted by sampling method in all the regions of the Russian Federation.

\* \* \*

Statistical data on OECD countries is based on the following sources: Education at a Glance 2018. OECD Indicators (<http://www.oecd.org/edu/education-at-a-glance-19991487.htm>); OECD Online Education Database (Organisation for Economic Cooperation and Development; <http://stats.oecd.org/>).

In cross-country comparisons, the Russian education system is presented in accordance with the International Standard Classification of Education (ISCED 2011) levels of education used to obtain comparable data on the key parameters of education systems in different countries.

The information on digital skills for the OECD countries is based on the annual Eurostat survey 'ICT usage in households and by individuals' (Eurostat digital economy and society database; <https://ec.europa.eu/eurostat/web/digital-economy-and-society/data/database>).

## **Education in Figures**

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**For Remarks**