## COUNTRY NOTE



## **Education at a Glance:** OECD Indicators 2012

# **RUSSIAN FEDERATION**

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### **KEY FINDINGS**

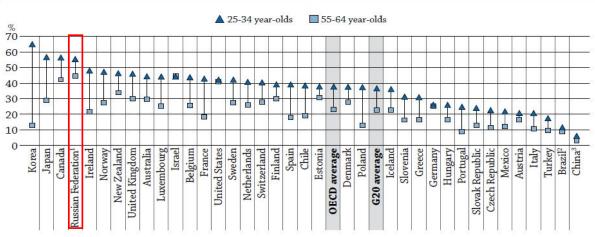
- The high educational attainment level of the Russian population continues to increase. 88% of the adult population have attained at least upper secondary education and 54% have a tertiary qualification. Only three countries have a higher tertiary attainment rate among 25-34 year-olds than the Russian Federation (55%).
- Despite large increases in national income invested in education in recent years, expenditure on education represents 5.5% of GDP, a much lower value than the OECD country average (6.3%).
- Only 43% of expenditure on education is devoted to primary, secondary and post-secondary nontertiary education – the lowest proportion among OECD and other G20 countries.

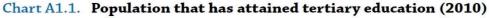
#### The Russian Federation has a well-educated work force compared to other countries...

In 2010, a large proportion of adults in the Russian Federation had attained at least upper secondary education (88%, compared to 74% on average among OECD countries and 56% on average among G20 countries), and a high proportion of adults had attained tertiary education (54%, compared to 31% on average among OECD countries and 26% on average among G20 countries). Much of this advantage is the result of the country's historically strong investment in education, as there are high levels of education among older age groups. At the tertiary level, the Russian Federation's strong results also stem from the fact that it is the only country where a majority of adults attaining a tertiary education are qualified from a vocational/technical programme<sup>1</sup> (33% of adults have such a qualification, compared to 10% and 13% on average in OECD and in G20 countries, respectively) (Tables A1.2a and A1.3a). This may also result from the possibility to combine education with employment: more than half of the students in a university

<sup>&</sup>lt;sup>1</sup> A distinctive feature of the Russian system is that students can enter type-B institutions after having completed only lower secondary school (Kapelyushnikov, 2008).

programme (tertiary-type A) are enrolled on a part-time basis (only Sweden and Poland have also a majority of part-time students in these programmes).





Percentage, by age group

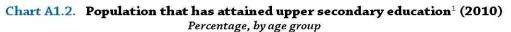
1. Year of reference 2002.

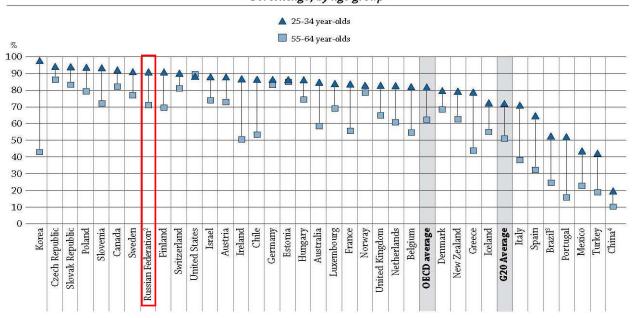
2. Year of reference 2009.

3. Year of reference 2000.

Countries are ranked in descending order of the percentage of 25-34 year-olds who have attained tertiary education. **Source:** OECD. Table A1.3a. See Annex 3 for notes (*www.oecd.org/edu/eag2012*).

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1. Excluding ISCED 3C short programmes.

2. Year of reference 2002.

3. Year of reference 2009.

4. Year of reference 2000.

Countries are ranked in descending order of the percentage of 25-34 year-olds who have attained at least an upper secondary education. Source: OECD. Table A1.2a. See Annex 3 for notes (www.oecd.org/edu/eag2012).

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The attainment level of the population has increased significantly over the last 40 years in most OECD and G20 countries (between 25-34 and 55-64 year-olds, upper secondary and tertiary attainment levels increased by 20 and 15 percentage points, respectively, on average in OECD countries). In general, differences in attainment between age cohorts are less pronounced in countries where the adult population has a high level of educational attainment. However, the Russian Federation has made notable progress in increasing attainment between generations, even though the attainment level of its older population is already high: 91% of 25-34 year-olds have attained an upper secondary education, compared with 71% of 55-64 year-olds (Table A1.2a), and 55% of 25-34 year-olds have obtained a tertiary education, compared to 44% of 55-64 year-olds<sup>2</sup> (Table A1.3a). The Russian Federation is among the top four countries with the highest proportions of young adults with a tertiary qualification (Chart A1.2).

However, an increasing number of countries may approach or surpass the Russian Federation's level of tertiary attainment in the coming years, because the proportion of the younger people with a tertiary attainment is increasing faster in some countries than in the Russian Federation. For example, Japan and Korea have lower proportions of 25-64 year-olds with tertiary education (45% and 40% respectively), but the proportions of 25-34 year-olds who have attained a tertiary education are already higher than in the Russian Federation (57% and 65% respectively). If this trend does not change in the next decades, educational attainment levels in Japan and Korea may surpass those in the Russian Federation.

#### ... and is attracting an increasing share of the international tertiary student market.

The number of foreign tertiary students enrolled worldwide has nearly doubled between 2000 and 2010. During the period 2005 to 2010, the changes were also quite significant, and the number of foreign student enrolled in the Russian Federation increased by 78% (the majority of them coming from neighbouring countries - Table C4.5). Although the United States, the United Kingdom, Australia, Germany and France account for half of all tertiary students pursuing their studies abroad, a significant number of foreign students (4%) were enrolled in the Russian Federation in 2010 (Table C4.4).

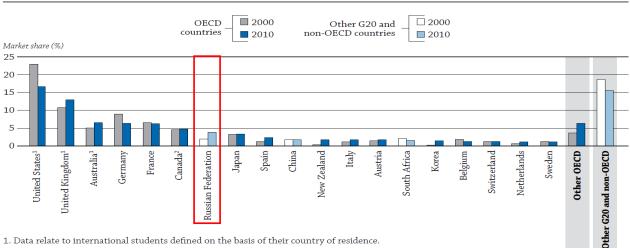


Chart C4.3. Trends in international education market shares (2000, 2010) Percentage of all foreign tertiary students enrolled, by destination

1. Data relate to international students defined on the basis of their country of residence.

2. Year of reference 2009.

Countries are ranked in descending order of 2010 market shares.

Source: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. Table C4.7, available on line. See Annex 3 for notes (www.oecd.org/edu/eag2012).

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<sup>&</sup>lt;sup>2</sup> In 2009 the Unified State Exam was made the main examination for school graduation and university, helping to create a more unified system (OECD, 2011).

Over a ten-year period, the Russian Federation's market share of international students (in other words, the proportion of international students who chose the Russian Federation as their destination for studies) grew by almost two percentage points (Chart C4.3). By contrast, the shares for Germany and the United States decreased by more than two percentage points during the same period (by 6.3 and 2.3 percentage points respectively).

#### Despite a large increase in national income invested in education...

The level of expenditure on education is affected by the size of a country's school age population, enrolment rates, level of teachers' salaries and the organisation and delivery of instruction. In the Russian Federation, investment in education increased substantially between 2000 and 2009. Public expenditure on education more than doubled for all levels of education combined, and more than tripled at the tertiary level (Tables B3.1, B3.2a and B3.2b).

This increase in education expenditure occurred in parallel with the rise of its GDP. Between 2000 and 2009, the Russian Federation had the largest increase in the GDP among OECD and other G20 countries (Table B2.5). However, the global recession that began in 2008 had (and is still having) a major negative impact on the different sectors of the economy. The Russian Federation's GDP fell (by 8%) between 2008 and 2009, as in most OECD countries, but because expenditure on education increased (by 6%) during this period, the proportion of the GDP spent on education also increased.

#### ...the Russian Federation's investment in education is nonetheless below the OECD average.

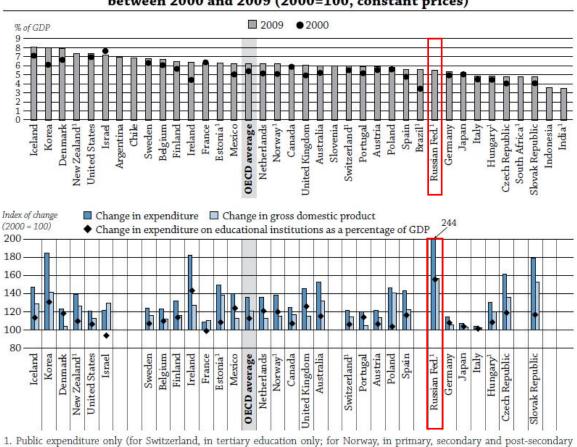
In 2009, the Russian Federation's (public) expenditure per student from primary to tertiary education was less than two thirds of the level of the OECD average (USD 5 354, compared to USD 9 249) (Table B1.1a). The difference with the OECD average is even larger when considering the various levels of education. Expenditure per student on primary, secondary and post-secondary non-tertiary education was only about half the OECD average (USD 4 325, compared to USD 8 617), while its expenditure per tertiary student was at 58% of the OECD average (USD 7 749, compared to USD 13 719) (Table B1.2).

Compared with the national wealth of the country (measured by GDP), the Russian Federation's spending on educational institutions amounted to 5.5% of the GDP in 2009, below the OECD average (6.3%). This resulted mainly from the low proportion of expenditure devoted to primary, secondary and post-secondary non-tertiary education. All together, 43% of expenditure on education is devoted to these levels of education combined, the lowest proportion among all countries with available data. This translates into 2.4% of GDP spent on these levels, compared with 4.0% on average in OECD countries. By contrast, expenditure on pre-primary and tertiary education amount to 0.9% and 1.8% of GDP respectively, which are above the OECD average levels (0.5% and 1.6% respectively). In fact, expenditure on the pre-primary education is among the largest across OECD and other G20 countries (Table B2.2).

# Public funding is predominant and focuses more on below-tertiary education, compared with the OECD average...

Education in the Russian Federation is predominantly funded by public sources, as in most OECD countries. Overall, 85% of total expenditure on education comes from public sources – an amount equal to the OECD average level. Compared to OECD countries, the share of public funding for education is below the OECD average at tertiary level, and above the OECD average at lower levels of education. Primary, secondary and post-secondary non-tertiary education relies nearly exclusively on public funds (97% of expenditure is from public sources, about 6 percentage points more than the OECD average, Table B3.2a). At the tertiary level, the proportion of expenditure from private sources is 35%, 5 percentage points higher than the OECD average (30%) (Table B3.2).

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#### Chart B2.1. Expenditure on educational institutions as a percentage of GDP for all levels of education (2000 and 2009) and index of change between 2000 and 2009 (2000=100, constant prices)

 Public expenditure only (for Switzerland, in tertiary education only; for Norway, in primary, secondary and post-secondary non-tertiary education only; for Estonia, New Zealand and the Russian Federation, for 2000 only). *Countries are ranked in descending order of expenditure from both public and private sources on educational institutions in 2009.* Source: OECD. Argentina, India, Indonesia: UNESCO Institute for Statistics (World Education Indicators programme). South Africa: UNESCO Institute for Statistics. Table B2.1 and Table B2.5, available on line. See Annex 3 for notes (www.oecd.org/edu/eag2012). StatLink and http://dx.doi.org/10.1787/888932662580

#### ... and class sizes tend to be small in public institutions at the lower levels of education.

The Russian Federation has the second smallest class sizes at the primary level (less than 17 pupils per classroom, compared with 21 on average in OECD countries) and the smallest class sizes at the lower secondary level (18 students per classroom, compared with 23 on average in OECD countries) (Table D2.1). Whereas in OECD countries the average class size does not differ between public and private institutions by more than one student per class in both primary and lower secondary education, class sizes are much larger in public institutions than in private institutions in the Russian Federation (by more than 6 students at the primary level and 8 students at the lower secondary level) (Chart D2.4 and Table D2.1).

#### Students receive somewhat less instruction time...

In the Russian Federation, intended instruction time is fully compulsory for all students between 7 and 14 years old. Students receive 5 835 hours of instruction during this period, the third-lowest instruction time

among OECD and G20 countries, and about 1000 hours less than the OECD average (6 862 hours) (Chart D1.1).

Compared with the average in OECD countries, instruction time is more focused on the three basic subjects: reading, writing and literature, mathematics and science. Between the ages of 7 and 8, 66% of instruction time is devoted to these subjects (55% on average in OECD countries), with a particular emphasis on reading, writing and literature (39% of instruction time, compared to 30% on average). Instruction time devoted to these basic subjects is at the OECD average for students between ages 9 and 11 (50% of instruction time, compared with 47% on average), but above the OECD average for students between 12 and 14 (54%, compared to 41%). Most of this difference (between the ages of 12 and 14) results from the large proportion of time devoted to science (24% of instruction time - 12% on average - which is the largest share in OECD and G20 countries) (Tables D1.2a, D1.2b and D1.2c).

#### Chart D1.1. Total number of intended instruction hours in public institutions between the ages of 7 and 14 (2010)

Estonia					_
Finland		10 3	1		
ussian Federation					
Slovenia		00 00			
Czech Republic <sup>1</sup>			22	16 8	
Korea					_
Sweden <sup>2</sup>				° í	
Indonesia		10 1		12 8	
Hungary			1		
Poland D			ŝ		
Norway		10 200			_
Greece			- R	16 8	
Germany			1		
Slovak Republic					
Japan				1 9	
Denmark				0	
Austria				18 8	
OECD average					
Turkey				8 8	
Belgium (Fl.)					_
Iceland					
England				8 8	
Portugal				0 0	_
Luxembourg			2010	12 3	_
Ireland					_
Canada		N 100 100	10.5	18 8	
France		(D) (D)	554.1		
Mexico					_
Spain					
Italy				0 0	
Netherlands				6 E - B	
Belgium (Fr.) <sup>3</sup>					
Israel					
Australia			10 B		_
Chile		de la			
	 1.2 2.	8 8 9		8 8	_

Ages 7 to 8 Ages 9 to 11 Ages 12 to 14

2. Estimated because breakdown by age is not available.

3. "Ages 12-14" covers ages 12-13 only.

Countries are ranked in ascending order of the total number of intended instruction hours.

Source: OECD. Table D1.1. See Annex 3 for notes (www.oecd.org/edu/eag2012).

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#### ... and have strong expectations for their futures.

15-year-old students participating in the 2006 PISA assessment were asked about their work expectations at around the age of 30. In OECD countries, more than half (55%) of the 15 year-olds expect to pursue highly skilled lines of employment, dominated by professional and managerial positions. The proportion reached 65% in the Russian Federation (and in five other OECD or G20 countries). Girls have more ambitious aspirations than boys, as in most countries, but the gender gap in career expectations was particularly large in the Russian Federation (more than 18 percentage points, the fifth largest gap among countries). Nevertheless, the proportion of both girls and boys with high expectations are higher than on average in OECD or G20 countries (Table A4.1).

#### A much higher proportion of teachers are women compared to most other countries...

Three-quarters of teachers are women (as for three other countries), the largest proportion among OECD and other G20 countries (two-thirds of teachers and academic staff are women, on average in OECD countries). This proportion decreases at higher levels of education but, among OECD and G20 countries, the Russian Federation has the largest shares of female teachers at the upper secondary level (80%, compared to 56% on average in OECD countries) and at the tertiary level (56%, compared to 41% on average in OECD countries). Only Finland, New Zealand and South Africa also have a majority of female academic staff at the tertiary level (Table D5.3).

#### ... and teachers spend a smaller amount of time teaching.

The working time of teachers includes both teaching and non-teaching time. In a few countries, including the Russian Federation, there is no formal requirement regarding the time spent on non-teaching activities, and only the teaching time of teachers varies by level of education. In the Russian Federation, teachers spend 615 hours annually teaching at the primary level and 507 hours at the secondary level, which are among the five lowest teaching times in OECD and G20 countries (in OECD countries the average is 782 hours at the primary level, 704 hours at the lower secondary level, and 658 hours at the upper secondary level) (Table D4.1).

The composition of teachers' annual teaching time, in terms of weeks and days of instruction and hours of teaching time, varies considerably. As a result, the average number of hours per day that teachers teach also varies widely. With three hours of teaching per day for teachers at the secondary level, the Russian Federation is among the countries with the lowest number of teaching hours per day for teachers (Chart D4.1 and Table D4.1).

## **KEY FACTS**

Indicator	Russian Federation	<b>OECD</b> average	Russian Federation rank*	
Educational Access and Output				
Enrolment rates				
3-year-olds (in early childhood education)	68%	66%	20 of 36 countries	
4-year-olds (in early childhood and primary education)	75%	81%	26 of 38 countries	
5-14 year-olds (all levels)	93%	96%	38 of 39 countries	
Percentage of population that has attained pre-primary or pr	imary levels of e	ducation onl	y	
25-64 year-olds	3%	m	28 of 37 countries	
Percentage of population that has attained at least upper second education	ondary			
25-64 year-olds	88%	74%	7 of 40 countries	
25-34 year-olds	91%	82%	8 of 36 countries	
55-64 year-olds	71%	62%	15 of 36 countries	
Percentage of population that has attained tertiary education				
25-64 year-olds	54%	31%	1 of 41 countries	
25-34 year-olds	55%	38%	4 of 37 countries	
55-64 year-olds	44%	23%	2 of 37 countries	
Entry rates into tertiary education			·	
Vocational programmes (Tertiary-type B)	29%	17%	6 of 33 countries	
University programmes (Tertiary-type A)	66%	62%	12 of 36 countries	
Financial Investment in Education				
Annual expenditure per student (in equivalent USD, using Pl	PPs)			
Pre-primary education	m	6 670	m	
Primary education	m	m 7 719		
Secondary education	4 325	9 312	31 of 37 countries	
Tertiary education	7 749	13 728	31 of 37 countries	
Total public and private expenditure on education			·	
As a percentage of GDP	5.5%	6.2%	28 of 37 countries	
Total public expenditure on education				
As a percentage of total public expenditure	m	13.0%	m	
Share of private expenditure on educational institutions				
Primary, secondary and post-secondary non-tertiary education	2.8%	8.8%	25 of 32 countries	
Tertiary education	35.4%	30%	9 of 31 countries	
All levels of education	15.2%	16%	13 of 30 countries	

Indicator	Russian Federation	OECD average	Russian Federation rank*						
Schools and Teachers									
Ratio of students to teaching staff									
Pre-primary education	m	14.4	m						
Primary education	19.2	15.8	9 of 36 countries						
Secondary education	11.3	13.8	29 of 38 countries						
Number of hours of compulsory instruction time per year									
7-8 year-olds	493	774 hours	32 of 33 countries						
9-11 year-olds	737	821 hours	24 of 34 countries						
12-14 year-olds	879	899 hours	19 of 34 countries						
Number of hours of teaching time per year (for teachers in public institutions)									
Primary education	615	782 hours	32 of 35 countries						
Lower secondary education	507	704 hours	32 of 34 countries						
Upper secondary education	507	658 hours	31 of 35 countries						
Ratio of teachers' salaries to earnings for full-time, full-year adult workers with tertiary education									
Primary school teachers	m	0.82	m						
Lower secondary school teachers	m	0.85	m						
Upper secondary school teachers	m	0.90	m						

\* Countries are ranked in descending order of values.

#### **REFERENCES**

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OECD (2011) OECD Economic Surveys: Russian Federation 2011, OECD Publishing. doi: 10.1787/eco\_surveys-rus-2011-en

See: *Education at a Glance 2012: OECD Indicators* Visit: <u>www.oecd.org/edu/eag2012</u> Country note author: Etienne ALBISER (etienne.albiser@oecd.org)

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