



Note on Japan

Under embargo until 13 September at 11:00 Paris time

Japan is going through a difficult time after the Tohoku earthquake and tsunami shattered its northern region in March 2011. The government has since developed and implemented a range of policy measures to reduce the impact of the massive shock and to recover quickly. This year's *Education at a Glance* suggests that education policy has a critical role to play in improving the long-term economic and social outcomes for Japan. The indicators suggest that the high value placed on education by Japan's society and the efforts made by Japanese education stakeholders, from the central government to the local school districts, to fortify the education system will pay large returns. The OECD will continue to support these efforts by developing comparative educational indicators and analyses, identifying good practices, and promoting policy dialogues.

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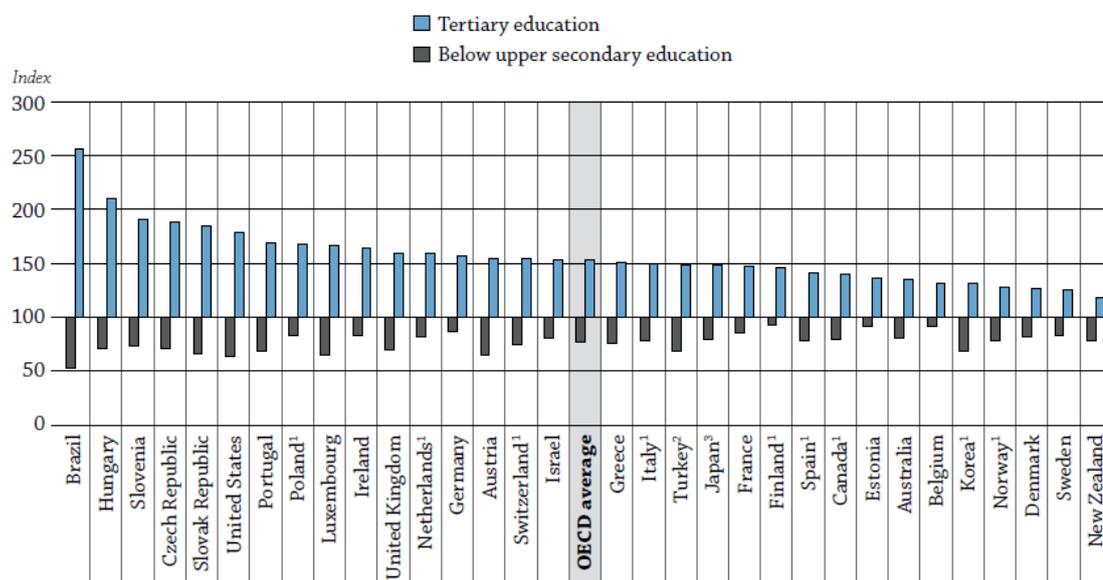
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The economic benefits of education are high in Japan as in many other OECD countries.

- Earnings increase with each level of education, especially with completion of tertiary education. Individuals who have not completed senior high school in Japan earn only 80% of what individuals who have completed that level of education earn. Conversely, individuals with a university degree earn 68% more than those who only completed senior high school. This earnings advantage is comparable to the OECD average (Chart A8.1, Table A8.1).
- As in some OECD countries, the earnings advantage is more pronounced for women than for men. While men with a university degree earn 41% more than men who only completed senior high school, this earnings premium rises to 91% among women (Chart A8.2, Table A8.1).
- With each level of education, employment rates increase and unemployment rates decrease. In Japan, the employment rate for men with an upper secondary education is 85.8% and the unemployment rate is 6.4%, whereas for men who completed a tertiary-type A (longer, largely theory-based) or advanced research programmes, the employment rate rises to 92.4% and the unemployment rate falls to 3.1%. For women, the employment rate rises from 60.8% to 69.9% and the unemployment rate falls from 5.3% to 3.3% as their level of educational attainment increases from upper secondary to tertiary (Tables A7.1a, A7.2a).
- Access to full-time work also improves with higher levels of education. On average across OECD countries (there is no available data for Japan), the proportion of individuals working full-time is 10 percentage points higher among those with a tertiary education than among those without an upper secondary education (Table A7.5).

Chart A8.1. Relative earnings from employment by level of educational attainment for 25-64 year-olds (2009 or latest available year)

Upper secondary and post-secondary non-tertiary education = 100



Note: Belgium, Korea and Turkey report earnings net of income tax. The Czech Republic, Hungary, Luxembourg, Poland, Portugal and Slovenia report earnings excluding data for individuals in part-time work. Hungary, Luxembourg, Poland and Slovenia also exclude data on part-year earnings.

1. Year of reference 2008.

2. Year of reference 2005.

3. Year of reference 2007.

Countries are ranked in descending order of the relative earnings of 25-64 year-olds with tertiary education.

Source: OECD, Table A8.1. See Annex 3 for notes (www.oecd.org/edu/eag2011).

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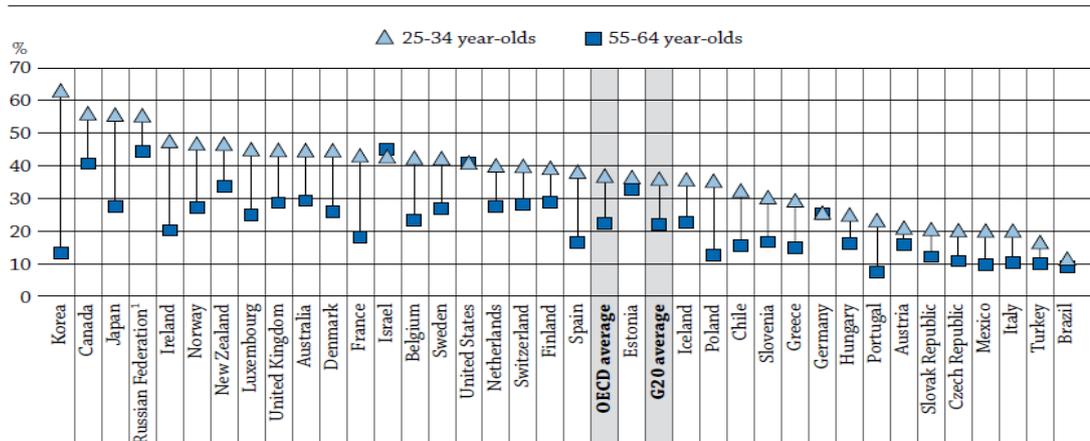
Education is also associated with better social outcomes in many OECD countries.

- Adults with higher levels of educational attainment are generally more likely than those with lower levels of attainment to express more satisfaction with life, be more engaged in civic activities, and report better health. In OECD countries, only 57.9% of adults who have not attained an upper secondary education report satisfaction in life, while this proportion rises to 75.5% among adults with a tertiary education. Similarly, electoral participation rises from 74.0% to 87.2% as the level of education increases, and volunteering rises from 10.8% to 20.0%. The association generally remains even after accounting for differences in gender, age and income (Tables A11.1, A11.3, no data available for Japan).
- In addition, students with higher measured levels of civic competencies showed higher levels of anticipated adult electoral participation and supportive attitudes towards gender equality (Table A11.2, no data available for Japan).

Japan has one of the best-educated labour forces among OECD countries.

- The percentage of Japanese adults with a tertiary education is one of the highest among OECD countries; this is particularly the case among 25-34 year-olds (Chart A1.1). Some 44% of 25-64 year-olds in Japan have completed higher education, a notably higher proportion than the OECD average of 30%. This figure is the third highest among OECD countries, after Canada (50%) and Israel (45%). However, 25% of Japanese adults have completed tertiary-type A programmes, which is only marginally higher than the OECD average of 21% (Table A1.3a).
- Japan's enrolment and graduation rates are generally higher than the OECD average. In 2009, 87.8% of 3-4 year-olds were enrolled in pre-primary education in Japan, significantly more than the OECD average of 70.1% (Table C1.1a). In 2009, the graduation rate in upper secondary education was 95%, significantly higher than the OECD average of 82% and the fourth highest after Portugal (96%), Slovenia (96%) and Finland (95%) (Table A2.1). In 2009, the net entry rate in tertiary-type A programmes was 49%, below the OECD average of 59%. The net entry rate into tertiary-type B programmes (shorter, practically oriented) was 27%, higher than the OECD average of 19%. The graduation rate from tertiary-type A programmes was 40.4%, which is slightly higher than the OECD average of 38.6%, while the graduation rate from tertiary-type B programmes was 26.2%, significantly higher than the OECD average of 10.4% (Tables A3.1, C2.1).

Chart A1.1. Percentage of population that has attained tertiary education, by age group (2009)



1. Year of reference 2002.

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/eag2011).

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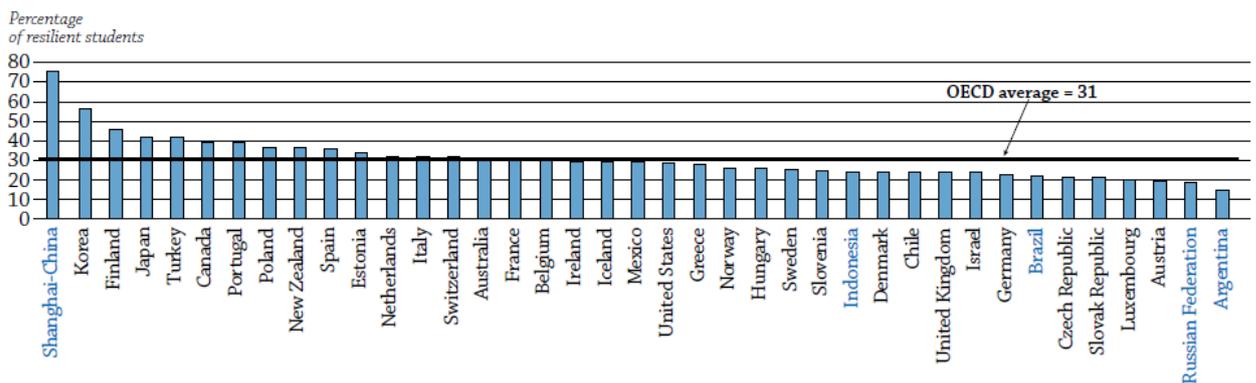
Educational outcomes among 15-year-olds are positive, and relatively few students are considered vulnerable.

- In PISA 2009, the percentage of Japanese students with low reading scores (i.e. below proficiency Level 3 on the PISA reading scale) was 31.6%, which is significantly lower than the OECD average of 42.8%. This is the fourth lowest proportion among OECD countries, after Korea (21.2%), Finland (24.8%) and Canada (30.5%) (Table D6.3). In addition, Japan’s overall ranking in PISA improved from 12th place in 2006 to 5th in 2009.

A relatively high proportion of students in Japan is resilient, meaning that these students perform better than expected, given their socio-economic backgrounds.

- PISA 2009 shows that students’ reading performance is linked to their socio-economic backgrounds, which include their parents’ education and occupations and their home possessions, such as a desk to use for studying and the number of books in their home. In Japan, the average gap in performance between students from different socio-economic backgrounds is about the same as the OECD average (Chart A5.1, Table 5.1).
- The four top performers in reading, Canada, Finland, Korea and Shanghai-China, show a below-average impact of socio-economic status on students’ reading performance (Chart A5.2).
- A resilient student is one who is among the 25% most socio-economically disadvantaged students in his or her own country and whose reading performance is ranked among the international group of students who most exceed expectations. According to data from PISA 2009, some 10.5% of students in Japan are resilient (the OECD average is 7.7%). This is the third highest proportion among OECD countries, after Korea (14.0%) and Finland (11.4%) (Chart A5.5, Table A5.3).
- A 15-year-old student whose parents or guardians had completed less than 12 years of schooling is more likely to score poorly on the PISA reading assessment. However, only 1.7% of students in Japan have this profile, far lower than the OECD average of 17.1% (Table D6.1).

Chart A5.5. Percentage of resilient students among disadvantaged students



Note: A student is classified as resilient if he or she is in the bottom quarter of the PISA index of economic, social and cultural status (ESCS) in the country of assessment and performs in the top quarter across students from all countries after accounting for socio-economic background. The share of resilient students among all students has been multiplied by 4 so that the percentage values presented here reflect the proportion of resilient students among disadvantaged students (those in the bottom quarter of the PISA index of social, economic and cultural status).

Countries are ranked in descending order of the percentage of resilient students.

Source: OECD, PISA 2009 Database, Table A5.2.

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Total expenditure per student in Japan is higher than the OECD average at the primary, secondary and tertiary levels, and is lower than the OECD average at the pre-primary level...

- In Japan, total annual expenditure, including both public and private expenditure, per student from primary to tertiary education in 2008 was USD 9 673, higher than the OECD average of USD 8 831 (Table B1.1a).
- The total annual expenditure per student is USD 7 491 at the primary level (the OECD average is USD 7 153); USD 9 092 at the secondary level (the OECD average is USD 8 972); and USD 14 890 at the tertiary level (the OECD average is USD 13 717). In contrast, Japan's expenditure at the pre-primary level is USD 4 711, significantly lower than the OECD average of USD 6 210 (Table B1.1a).

...but Japan spends significantly less on education as a proportion of GDP and as a share of total public expenditure than the OECD average, and spending levels have declined.

- In 2008, Japan's level of public expenditure on education as a percentage of GDP was 3.3%, lower than the OECD average level of 5.0%, and the lowest among OECD countries with available data. The level for primary and secondary education is 2.5% and that for tertiary education is 0.5%, both of which are lower than the OECD average levels (3.5% and 1.0%, respectively) (Table B2.3).

Expenditure on educational institutions as a percentage of GDP

(%)	Total all levels of education	Primary, secondary and post-secondary non-tertiary education	Tertiary education
Japan	3.3	2.5	0.5
OECD average	5.0	3.5	1.0
United States	5.1	3.8	1.0
United Kingdom	5.1	4.2	0.6
France	5.5	3.7	1.2
Germany	4.1	2.6	1.0
Canada	4.6	3.1	1.5
Italy	4.5	3.2	0.8
Russian Federation	4.1	2.0	0.9
Korea	4.7	3.4	0.6

- Japan invested 9.4% of its total public expenditure in education in 2008. This figure decreased slightly since 2000, and is the lowest among OECD countries with available data. The proportion of public expenditure devoted to education among OECD countries averaged 11.8% in 1995 and rose to 12.9% in 2008. Some 6.8% of Japan's total public expenditure goes towards primary, secondary and post secondary non-tertiary education (the OECD average is 8.7%) while 1.8% goes towards tertiary education (the OECD average is 3.0%) (Table B4.1).

Total public expenditure on education as a percentage of total public expenditure

(%)	Total all levels of education	Primary, secondary and post-secondary non-tertiary education	Tertiary education
Japan	9.4	6.8	1.8
OECD average	12.9	8.7	3.0
United States	13.8	9.7	3.2
United Kingdom	11.1	8.7	1.7
France	10.6	7.0	2.3
Germany	10.4	6.5	2.8
Canada	12.3	7.8	4.5
Italy	9.4	6.7	1.7
Korea	15.8	11.0	2.2

In Japan, the share of private funding in total expenditures on educational institutions is higher than the OECD average.

- In 2008, 33.6% of total expenditure on educational institutions in Japan came from private sources, significantly more than the OECD average of 16.5% and the third highest proportion among OECD countries with available data after Chile (41.4%) and Korea (40.4%). Some 21.3% of total expenditure on educational institutions came from individual households (Table B3.1).
- The share of total expenditure on educational institutions that comes from private sources is higher in Japan than the OECD average at all levels of education, and particularly high at the pre-primary and tertiary levels (Tables B3.2a, B3.2b).

**Proportions of private expenditure
allocated to pre-primary and tertiary educational institutions**

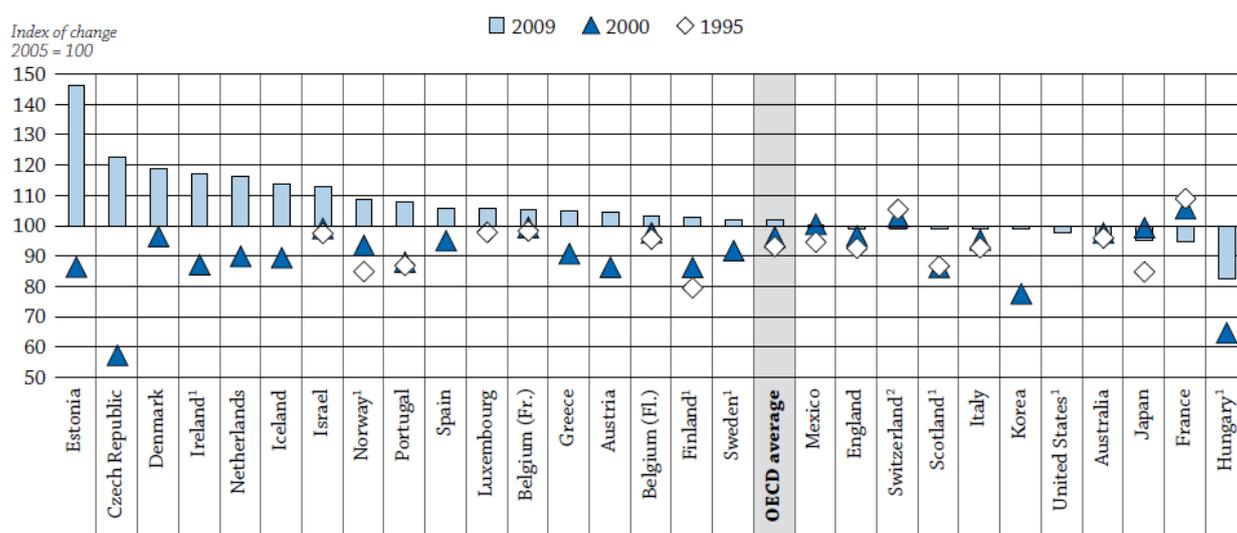
(%)	Pre-primary education			Tertiary education		
	All private sources	Household expenditure	Expenditure of other private entities	All private sources	Household expenditure	Expenditure of other private entities
Japan	56.5	38.8	17.7	66.7	50.7	16.0
OECD average	18.5	-	-	31.1	-	-
United States	20.2	20.2	-	62.6	41.2	21.5
United Kingdom	15.5	15.5	-	65.5	51.5	14.0
France	6.0	5.9	-	18.3	9.6	8.7
Germany	26.5	-	-	14.6	-	-
Canada	-	-	-	41.3	19.9	21.4
Italy	6.7	6.7	-	29.3	21.5	7.8
Russian Federation	12.3	10.0	2.3	35.7	20.1	15.6
Korea	54.5	52.1	2.4	77.7	52.1	25.6

- When countries are grouped according to tuition fees and support to tertiary students, Japan is classified as among the “countries with high levels of tuition fees but less-developed student-support systems”, along with Korea. That is, tuition fees are relatively high, but a relatively small proportion of students (33%) benefits from public financial aid (Chart B5.1, Tables B5.1, B5.2).

In recent years, additional investments have focused on reducing comparatively large classes, but other factors that influence the quality of education need to be taken into account.

- In 2009, the average primary school class in Japan had 28.0 students, more than the OECD average of 21.4 students and the third largest class size among OECD countries, after Chile (29.6) and Korea (28.6). The average lower secondary class had 33.0 students, significantly more than the OECD average of 23.7 students and the second largest class size, after Korea (35.1), among the OECD countries with available data (Table D2.1).
- The student-teacher ratio in Japan is 18.6 at the primary level and 14.5 at the lower secondary level, both of which are higher than the OECD average (16.0 and 13.5, respectively) (Table D2.2).
- While most OECD countries have improved teachers’ salaries and working conditions, teachers’ salaries in Japan have declined in real terms since 2005, and even more so relative to those in other countries (Chart D3.2, Table D3.3).

Chart D3.2. Changes in lower secondary teachers' salaries after 15 years of experience/minimum training (1995, 2000, 2005, 2009)



1. Actual salaries.

2. Salaries after 11 years of experience.

Countries are ranked in descending order of the index of change between 2005 and 2009 in teachers' salaries in lower secondary education after 15 years of experience.

Source: OECD. Table D3.3. See Annex 3 for notes (www.oecd.org/edu/eag2011).

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While Japanese teachers' statutory working hours are longer than the OECD average, their teaching hours are shorter.

- The number of teaching hours in Japan is 707 per year at the primary level, 602 hours at the lower secondary level, and 500 hours at the upper secondary level, all of which are lower than the OECD average (779 hours, 701 hours, and 656 hours, respectively). On the other hand, the number of statutory working hours at all levels of education is 1,889 hours, which is considerably higher than the OECD averages (1,665 hours at the primary level, 1,660 hours at the lower secondary level, and 1,663 hours at the upper secondary level) (Table D4.1).

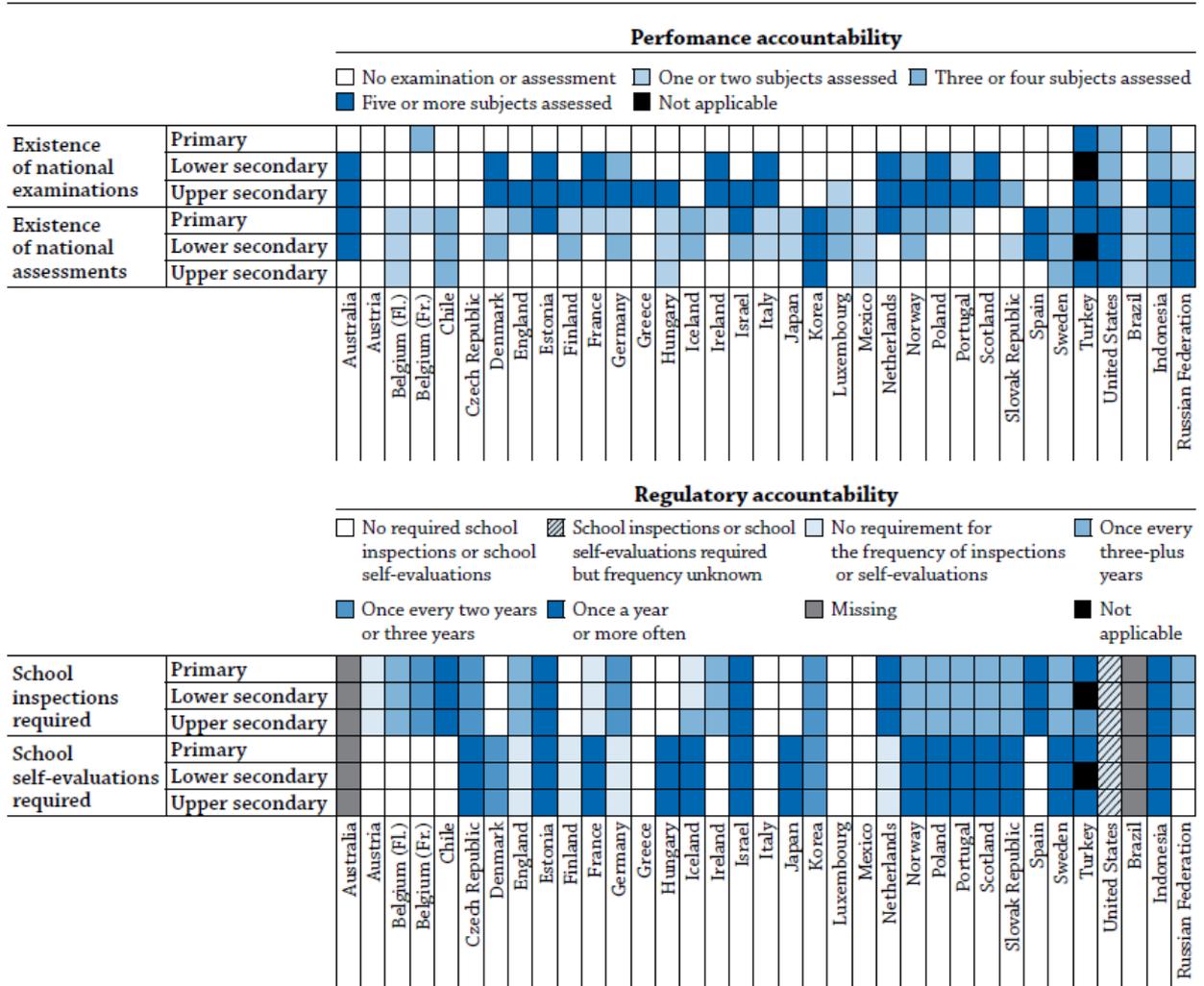
Japan uses national assessments, rather than national examinations, to hold schools accountable for educational outcomes.

- Many OECD countries, but not Japan, use national examinations to raise performance accountability at the upper-secondary level, but much less so at the primary and lower-secondary levels (Chart D5.1).
- Japan and many other OECD countries conduct national assessments as a part of policies to make schools accountable for educational outcomes at primary and lower secondary schools. Some 27 of 32 OECD countries, including Japan, reported using national assessments at the primary level, and 19 countries, including Japan, did so at the lower secondary level. Only 8 countries, not including Japan, reported using national assessments at the upper secondary level (Chart D5.1).
- One decade after Japan incorporated “PISA-type” open-constructed tasks into the national assessment, PISA outcomes improved markedly (Box 3 of the Editorial).

Many OECD countries have systems to hold schools accountable on compliance with regulations.

- Some 21 OECD countries, including Japan, report that school self-evaluation is a required part of the accountability system at the primary to upper secondary levels. In 23 countries, not including Japan, school inspections are required as part of the accountability system. However, the scope and frequency of school inspection vary considerably across countries (Chart D5.1).

Chart D5.1. Performance and regulatory accountability in public schools (2009)



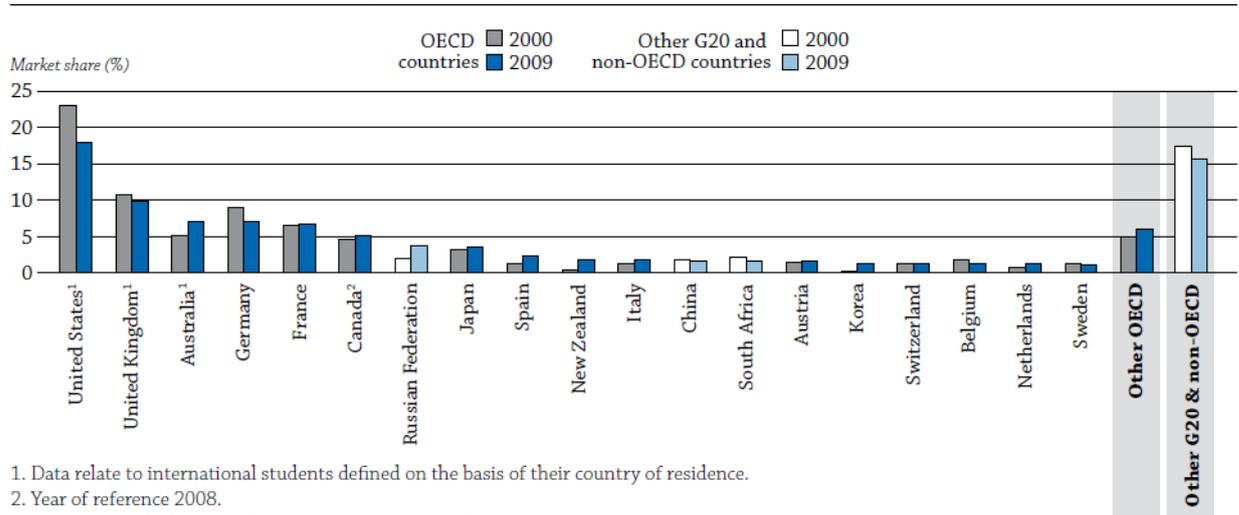
Source: OECD. Tables D5.4a, D5.4b, D5.4c, D5.6a, D5.6b, D5.6c, D5.7a, D5.7b, D5.7c, D5.10a, D5.10b and D5.10c. See Annex 3 for notes (www.oecd.org/edu/eag2011).

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Japan is rapidly increasing its share in the international student market.

- The number of foreign students enrolled in tertiary education in Japan has doubled between 2000 and 2009. In 2009, 3.4% of all tertiary students in Japan were foreign students (Table C3.1).
- Some 3.6% of all foreign tertiary students reported to the OECD studied in Japan in 2009 – the 8th highest share after the United States, the United Kingdom, Australia, Germany, France, Canada and the Russian Federation (Chart C3.2). This figure reflects a significant increase from 3.2% in 2000 (Chart C3.3, Table C3.6 available on line).

Chart C3.3. Trends in international education market shares (2000, 2009)
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 2008.

Countries are ranked in descending order of 2009 market shares.

Source: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. Table C3.6, available on line. See Annex 3 for notes (www.oecd.org/edu/eag2011).

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The rapid change in the composition of the global talent pool will pose challenges for Japan.

- In 2009, there were 39 million 55-64 year-olds with a tertiary degree – and 81 million 25-34 year-olds with a similar level of education among countries with available data. This reflects a significant change in the global talent pool across generations (Table A1.3a).
- However, for Japan and the United States, their share of this pool has diminished markedly across generations. In 2009, 12.4% of 55-64 year-olds with tertiary education were from Japan, but only 10.9% of 25-34 year-olds with a tertiary degree were. Similarly, 35.8% of the tertiary-educated older age group in countries with available data were from the US, but only 20.5% of the younger age group with that level of education were. These figures stand in sharp contrast with the trends in emerging economies, such as China, which has rapidly increased its global share of tertiary graduates from 6.9% among 55-64 year-olds to 18.3% among 23-34 year-olds (Table A1.3a).