EDUCATION AT A GLANCE 2013

OECD

JAPAN

The 2013 edition of *Education at a Glance* offers a snapshot of how education – and the people who participate in and benefit from it – fared during the worst economic downturn in decades. As in most other OECD countries, the unemployment crisis hit young people in Japan particularly hard; but unlike any other OECD country, Japan also had to cope with the effects of the devastating Great East Japan Earthquake, which struck in March 2011, as it was trying to recover from a manmade crisis.

As Japan strives to recover from the financial crisis...

The global financial crisis severely affected the employment climate across OECD countries - particularly among young adults. Japan was no exception, as full-time employment rates among 15-24 year-olds who were not in education dropped from 24.5% to 18.2% between 2008 and 2011 (Table C5.7). The proportion of those in that age group who were neither employed nor in education or training (NEET) exceeded 10% for the first time in 2011, up from 8.8% in 2005 (Table C5.4a). Even those who are employed are in a precarious situation. More than one-third of 15-24 year-olds who are not in education and are employed are part-time workers. The proportion of part-time workers is larger among young adults who have less education: in 2011, one in four employed young tertiary graduates was working part time, whereas just over two in five employed young people without a tertiary degree were working part time (Table C5.6).

...education is expected to play an important role in promoting stability and growth.

Japan has already achieved high levels of educational attainment and academic success; however, its education system needs to adapt and innovate to cope with the evolving demands of the labour market and the county's rapidly changing demographic profile. Japan recently launched ambitious reforms that combine monetary, fiscal and structural policies. While the financial market has already responded favourably to some of these measures, a major challenge will be to sustain the path of economic recovery and promote growth by boosting labour-market participation and productivity. Education policy can play an important role in addressing this challenge by fostering the skills of the current and future generations, particularly among youth, women and disadvantaged individuals.

Japan continues to prioritise education: expenditures are rising...

In 2010, the annual expenditure on education services per student in primary education was USD 8 353 and that for students in secondary education was USD 9 957, both higher than the OECD averages of USD 7 974 and USD 9 014, respectively (Table B1.1a, Chart B1.2). Average annual expenditure per tertiary student was USD 16 015, considerably higher than the OECD average of USD 13 528.



While most of the expenditure on basic education comes from public sources, expenditure on tertiary education largely comprises private contributions. Of the total expenditure on primary, secondary and post-secondary non-tertiary education, 93% was publicly financed in 2010, comparable to the OECD average of 91.5% (Table B3.2a). By contrast, private sources covered 65.6% of the total cost of tertiary education in 2010, which is more than double the OECD average of 31.6%, reflecting an increase from

61.5% in 2000 (Table B3.2b). Moreover, household expenditure accounted for 79% of the total private expenditure on tertiary education.

Japan's public investment in education has increased even in times of financial struggle and demographic changes. Public expenditure on educational institutions increased by 5% between 2008 and 2010 – in line with trends in other OECD countries (Table B2.5). However, public expenditure on educational institutions as a percentage of GDP is the lowest among OECD countries with comparable data: 3.6% in 2010 compared to the OECD average of 5.4% (Table B2.3).



...and enrolment and graduation rates are high and increasing.

Access to pre-primary education in OECD countries has expanded considerably over the past decade, partly in response to women's increasing participation in the labour market. Japan is close to achieving universal pre-primary education, with 93% of 4-year-olds enrolled in early childhood education in 2011 (Table C2.1 and Chart C2.1). Upper-secondary education is also almost universal in Japan, with graduation rates in 2011 reaching 96% - the third highest proportion among OECD countries after Slovenia and Finland and considerably higher than the OECD average of 83% (Table A2.1a).



Japan also has a highly educated adult population, with 46% of 25-64 year-olds having attained a tertiary education in 2011, up from 34% of 25-64 year-olds in 2000. This proportion is much larger than the OECD average (32%) and the third largest among OECD countries after Canada and Israel (Table A1.3a). Moreover, tertiary attainment rates among younger adults continue to climb: in 2011, 59% of Japan's 25-34 year-olds had a tertiary education, an 11 percentage-point increase since 2000. This is the second highest proportion among OECD countries after Korea, while the OECD average was 39% and the proportion in the Unites States was 43% (Table A1.4a).

Teachers spend long hours at school....

Total statutory working time for Japan's school teachers is longer than in other OECD countries. In 2011, public school teachers in primary to upper secondary education had a total statutory working time of 1 883 hours, which was more than the OECD averages (1 671 hours at the primary level, 1 667 hours at the lower secondary level, and 1 669 hours at the upper secondary level) (Table D4.1). In contrast, teachers' net teaching hours are shorter than the OECD average. In 2011, public school teachers in Japan taught 731 hours at the primary level (OECD average: 790 hours), 602 hours at the lower secondary level (OECD average: 709 hours), and 510 hours at the upper secondary level (OECD average: 664 hours) (Table D4.1). This gap between working hours and teaching hours may reflect the time teachers spend working outside of the classroom. Teachers in Japan are expected to perform a wide variety of tasks besides teaching in the classroom. These typically include supervising students' extracurricular activities, providing student counselling, and dealing with administrative matters.



Number of statutory working hours per year in lower secondary education (2011)

Countries are ranked in descending order of the number of teaching hours per year in lower secondary education in 2011. **Source:** OECD. Table D4.1.

...where considerable efforts have been made to reduce class size.

In 2011, the average primary school class in Japan had 27.9 students – down from 29.0 students in 2000. The average lower secondary class had 32.7 students – down from 34.7 students. Yet, these figures are still the second largest among OECD countries (Table D2.1 and Chart D2.1).

In contrast, student-teacher ratios in Japan are not particularly high compared to other OECD countries. In 2011, there were 18.1 primary students per teacher (the OECD average was 15.4 students per teacher) and 14.2 lower secondary students per teacher (the OECD average was 13.3 students per teacher) (Table D2.2). The gap between Japan's large classes and its moderate student-teacher ratios may reflect a number of different elements including Japanese teachers' relatively shorter teaching hours (Table D4.1).



Foreign students are also attracted to Japan's tertiary education institutions.

In the 1980s, Japan started to promote its tertiary institutions overseas. The government worked to improve the availability of scholarships for international students and to relax immigration controls. After attaining its initial goal of inviting 100 000 international students, in 2008 the Japanese government announced the "300 000 International Students Plan", which aimed to increase the number of international students by 2020. In 2011, Japan attracted 3.5% of foreign tertiary students from around the world - the eighth largest share among all the destination countries (Table C4.4 and Chart C4.2). This figure is exceptionally large considering that the language of instruction is mostly Japanese. While the number of foreign tertiary students in OECD countries doubled over the past decade, Japan increased its market share from 3.2% in 2000 (Table C4.7, available on line, and Chart C4.3). The United States hosted the largest proportion of foreign tertiary students in 2011, but its share in international education dropped from 22.9% to 16.5% between 2000 and 2011. Among foreign students studying in Japan in 2011, 93.3% came from Asia, including 62.3% from China and 17.1% from Korea (Table C4.3). Japan is the second most popular destination for Chinese students after the United States, receiving 13.1% of Chinese students studying abroad (Table C4.4).



Chart C4.3 Trends in international education market shares (2000, 2011) Percentage of all foreign tertiary students enrolled, by destination

JAPAN - Country Note - Education at a Glance 2013: OECD Indicators

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

2. Year of reference 2010.

Countries are ranked in descending order of 2011 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/eag2013).

But there is room to raise equity and efficiency in education, such as by enhancing financial support systems in tertiary education...

Tertiary education brings considerable benefits to both individuals and the society. In Japan , in 2007, the gross earning benefits of tertiary education over a lifetime were USD 326 614 for men and USD 231 306 for women (Tables A7.3a and A7.3b). In 2011, unemployment rates were 3.0% for those with a tertiary-type A (largely theory-based) degree, and 5.3% for those with an upper secondary qualification (Table A5.2a). The society also benefits from additional income tax receipts and social contributions, and financial gains from reduced unemployment rates that amounts to USD 100 562 for men and USD 49 965 for women over a lifetime (Tables A7.4a and A7.4b).

Despite these benefits, high tuition fees can be a disincentive from investing in tertiary education. Tuition fees for tertiary-type A programmes in Japan are some of the highest among OECD countries. The average annual fee to attend public tertiary institutions was USD 5 019 during the academic year 2010-11 - the fifth highest annual fee among countries with available data (Table B5.1). Some 75% of students in Japan were enrolled in private tertiary institutions, whose average tuition fee was USD 8 039 in 2010-11. Tuition fees for both public and private institutions in Japan have increased since the academic year 2008-09 (*OECD Education at a Glance 2012*, Table B5.1).

In response to increasing tuition fees, the proportion of students who benefit from public financial support has been increasing. In the academic year 2010-11, 37% of Japanese tertiary students received public loans and 3% of students received scholarships/grants (Table B5.2). Yet, these proportions, particularly the latter, are still relatively small compared to other OECD countries with high tertiary tuition fees (Chart B5.1).



Chart B5.1. Relationship between average tuition fees charged by public institutions and proportion of students who benefit from public loans and/or scholarships/grants in tertiary-type A education (2011) For full-time national students, in USD converted using PPPs for GDP, academic year 2010-2011

Note: Arrows show how the average tuition fees and the proportion of students who benefit from public support have changed since 1995 further to reforms (solid arrow) and how it may change due to changes that have been planned since 2008-09 (dash arrow)

1. Figures are reported for all students (full-time national and full-time non-national/foreign students)

2. Average tuition fees from USD 200 to 1402 for university programmes dependent on the Ministry of Education.

3. Tuition fees refer to public institutions but more than two-thirds of students are enrolled in private institutions.

4. If only public institutions are taken into account, the proportion of students who benefit from public loans AND/OR scholarships/grants should be 68%.

Source: OECD. Tables B5.1 and B5.2. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

The recent financial crisis is likely to have affected students' ability to repay these loans. As the number of borrowers of student loans increased in recent years, there has been growing amount of debt in arrears in Japan (JASSO, 2012). One way to strengthen student support is to establish an income-contingent loan system. Such a scheme takes into account differences in students' ability to repay the loan after graduation. Hence, those who have access to high-paying jobs would receive less public subsidies. Japan's national student loan programme recently introduced a scheme that provides some recipients with unlimited grace periods depending on their financial circumstances after graduation. Yet, this income-contingent repayment scheme comes with strict eligibility requirements (e.g. minimum academic performance as well as maximum household income) and is not available to all loan recipients. Japan may consider expanding opportunities for disadvantaged students to benefit from tertiary attainment, allowing them to repay loans as their financial circumstances permit.

...reducing gender imbalance in the choice of tertiary education programmes and the domains of study...

There is a significant gender gap in employment in Japan. In 2011, only 63% of women were employed compared with 88% of men - the fifth largest gap among OECD countries (the OECD averages were 65% and 80%, respectively) (Table A5.1b). While in most OECD countries this gap tends to narrow as the level of education rises, in Japan the gap remains substantial, regardless of the level of education. In 2011, 68% of women with tertiary-type A degrees were employed, a considerably smaller proportion than the OECD average rate of 79%. In comparison, 92% of men with a similar degree were employed, a larger proportion than the OECD average of 88% (Table A5.1b). Moreover, women in Japan who are employed tend to be underemployed (e.g. they are working part-time involuntarily and/or are overqualified for the job). In 2011, 34.8% of employed women worked part-time, compared to the OECD average of 26.0%. Some 20.7% of employed women were temporary employees, compared to the OECD average of 12.5% (OECD, 2012). Among 15-24 year-olds, 37.7% of employed young women who were not in education worked part-time, compared to 29.6% of their male counterparts (Tables C5.3b and C5.3c).

While tertiary attainment in Japan is high for both men and women, there are notable differences in the types of tertiary programmes and fields of study chosen. While the majority of male tertiary graduates (age 25-64) attended tertiary-type A and advanced research programmes, the majority of female graduates in the same age group attended tertiary-type B (shorter, vocationally oriented) programmes. However, recent trends suggest that women increasingly attend tertiary-type A and advanced research programmes (Table A1.3b, available on line). In 2011, 42% of graduates from those programmes were women, suggesting a significant increase from 36% in 2000 (Table A3.3, available on line). In most other OECD countries, however, more women than men graduate from these programmes: the proportions of female graduates were 58% on average across OECD countries and 60% across EU countries.

There is also a gender bias in the fields of tertiary education Japanese students choose. In particular, women rarely choose the fields of science and engineering. In 2011, the percentage of female graduates in tertiary-type A engineering, manufacturing and construction programmes was 11% - the lowest proportion among OECD countries with comparable data; meanwhile, 26% of science graduates were women - the second lowest after the Netherlands. Although there has been some progress since 2000, when 9% of engineering, manufacturing and construction graduates and 25% of science graduates were women, the more recent proportions are still significantly below the OECD averages of 27% and 41%, respectively (Table A3.3, available on line).

Changes in corporate labour practices and family policies can play an important role in boosting women's participation in the labour market and reducing underemployment. The education sector can also play a role by promoting gender balance in tertiary programmes and domains of study. This may happen, for instance, by encouraging schools and families to provide students with balanced perspectives on gender roles in society, and to inform young women of the wide range of employment opportunities available to them and the types of skills they need to develop to achieve a smooth transition from school to work.

...and rewarding high-performing teachers.

Teachers' salaries in Japan rise sharply as their years of experience increase. At the lower secondary level, the statutory starting salary was USD 26 031 in 2011, below the OECD average (USD 30 216) (Table D3.1). On the other hand, salaries at the top of the scale in Japan reached USD 57 621 and were higher than the OECD average (USD 52 697) (Chart D3.2 and Table D3.5, available on line).



In Japan, teachers' base salaries are determined by local or regional authorities, largely based on years of experience (Table D3.6c, available on line). While teachers also receive additional payments based on the level and type of responsibilities, teachers' qualifications, training experience and performance are generally not taken into account in determining salaries. Note, however, that some local authorities (about one third of 67 authorities) reflect results of their teacher evaluations in the teachers' salary scales (MEXT, 2012). It may be difficult to sustain the tradition of providing financial rewards largely based on seniority and experience given that performance and/or qualification-based salaries are increasingly becoming the norm in other professions.

Japan could benefit from further encouraging students to study abroad.

Although a large number of foreign students attend Japanese universities, not many Japanese students study abroad. In 2011, 38 535 Japanese students were enrolled as foreign students in tertiary institutions abroad. This figure has been continuously declining since 2005 when it peaked at 62 853 (Table C4.7, available on line; *OECD Education at a Glance 2007*, Table C3.8, available online). Only 1.0% of all Japanese tertiary students choose to study abroad – one of the lowest proportions, along with those in Australia, Chile, Mexico and the United States (Table C4.5). Across OECD countries, 2.0% of national tertiary students were enrolled overseas, and 3.6% across EU countries.

This trend may indicate that Japan's tertiary institutions successfully meet the needs of Japanese students. On the other hand, critics argue that this trend reflects Japanese students' tendency to "look inward" and their fear of taking risks to venture outside their own country. To the extent that studying abroad provides Japanese students with opportunities to develop advanced knowledge, access to a global network of talent, and the chance to improve their foreign language skills, notably English, the drop in the number of Japanese students studying abroad suggests forgone opportunities.

Other findings

- More than half of the expenditure on Japanese pre-primary education institutions comes from private sources. In 2011, public expenditure accounted for only 45.2% of the expenditure on pre-primary educational institutions, while the OECD average was 82.1% and the EU average was 88.7%. Some 37.9% of the total expenditure on pre-primary education comes from private households (Table B3.2a). In 2011, 70.3% of pre-primary educational institutions were private, while the OECD average proportion was 19.5% and the EU average was 17.7% (Table C2.2).
- In 2011, the statutory salary of Japanese primary, secondary and post-secondary non-tertiary teachers with 15 years of experience was USD 45 741, above the OECD average (USD 38 136 at the primary level, USD 39 934 at the lower secondary level, and USD 41 665 at the upper secondary level) (Table D3.1). Meanwhile, teachers' salaries fell between 2000 and 2011 as a result of cuts in public workers' salaries. This is in contrast to most OECD countries, where teachers' salaries increased over the same period. In Japan, the salaries of teachers with 11 years of experience shrunk by 9% in real terms between 2000 and 2011 (Table D3.4 and Chart D3.3). Only France recorded a similar decrease in teachers' salaries.
- The proportion of female teachers is significantly lower in Japan than in other OECD countries at all levels of education except pre-primary and tertiary-type B education. In 2011, 65% of primary teachers were women (OECD average: 82.1%); 41.7% of lower secondary teachers were women (OECD average: 67.5%); 28.4% of upper secondary teachers were women (OECD average: 56.5%); and 19.1% of tertiary-type A and advanced research instructors were women (OECD average: 38.7%) (Table D5.3 and Chart D5.2).

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Please note: all Tables, Charts and Indicators are found in *Education at a Glance 2013* (www.oecd.org/edu/eag.htm)

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Table	Indicator	Japan		OECD average		Rank among OECD countries and other G20 countries*				
Educational Access and Output										
	Enrolment rates***	2011	2005	2011	2005					
C2.1	3-year-olds (in early childhood education)	77%	69%	67%	64%	17 of 36				
	4-year-olds (in early childhood and primary education)	93%	95%	84%	79%	18 of 36				
C1.1a	5-14 year-olds (all levels)	100%		99%		4 of 38				
	Percentage of population that has attained below upper secondary education	2011	2000	2011	2000					
A1.4a	25-64 year-olds	m	17%	26%	34%	m				
	Percentage of population that has attained upper secondary education	2011	2000	2011	2000					
A1.4a	25-64 year-olds	54%	49%	44%	44%	8 of 36				
	Percentage of population that has attained tertiary education	2011	2000	2011	2000					
	25-64 year-olds	46%	34%	31%	22%	3 of 36				
A1.3a	30-34 year-olds	m		39%		m				
A1.4a	25-34 year-olds	59%	48%	39%	26%	2 of 36				
	55-64 year-olds	31%	15%	24%	15%	9 of 36				
	Entry rates into tertiary education	2011	2000	2011	2000					
(3.12	Vocational programmes (Tertiary-type B)	29%	32%	19%	16%	7 of 32				
C3.1a	University programmes (Tertiary-type A)	52%	40%	60%	48%	23 of 36				
	Graduation rates	2011	2000	2011	2000					
A2.1a	Percentage of today's young people expected to complete upper secondary education in their lifetime	96%	95%	83%	76%	3 of 27				
A3.1a	Percentage of today's young people expected to complete university education (tertiary-type A) in their lifetime	44%	29%	39%	28%	7 of 26				
	Economic and Labour Market Outcomes	-		-						
	Unemployment rate of 25-64 year-olds - Men and Women	2011	2008	2011	2008					
	Below upper secondary	m	m	12.6%	8.8%	m				
A5.4b	Upper secondary and post-secondary non-tertiary	5.3%	4.4%	7.3%	4.9%	25 of 36				
	Tertiary	3.4%	3.1%	4.8%	3.3%	27 of 36				
	Unemployment rate of 25-64 year-olds - Women	2011	2008	2011	2008					
	Below upper secondary	m	m	12.2%	9.5%	m				
A5.4d	Upper secondary and post-secondary non-tertiary	4.7%	4.0%	8.0%	5.7%	28 of 35				
	Tertiary	3.4%	3.5%	5.1%	3.6%	27 of 36				
	Average earnings premium for 25-64 year-olds with tertiary education**	2011 or latest year available		2011						
	Men and women	148		157		21 of 33				
A6.1	Men	139		162		26 of 33				
	Women	161		161		15 of 33				
	Average earnings penalty for 25-64 year-olds who have not attained upper secondary education**	2011 or latest year available		2011						
	Men and women	80		76		13 of 33				
A6.1	Men	74		77		21 of 33				
	Women	78		74		10 of 33				
	Percentage of people not in employment, education or training for 15-29 year-olds, by level of education attained	2011	2008	2011	2008					
	Below upper secondary	m	m	15.8%	14.4%	m				
C5.4d	Upper secondary	m	m	16.2%	13.6%	m				
1	Tertiory	m	m	13 306	10.6%	m				

Key Facts for Japan in Education at a Glance 2013

Table	Indicator	Japan		OECD average		Rank among OECD countries and other G20 countries*
	Financial Investment in Education					
	Annual expenditure per student (in equivalent USD, using PPPs)	2010		2010		
	Pre-primary education	5550 USD		6762 USD		20 of 32
D1 1-	Primary education	8353 USD		7974 USD		15 of 34
в1.1а	Secondary education	9957 USD		9014 USD		14 of 34
	Tertiary education	16015 USD		13528 USD		9 of 33
	Total expenditure on educational institutions as a percentage of GDP	2010	2000	2010	2000	
B2.1	As a percentage of GDP	5.1%	5.0%	6.3%	5.4%	28 of 33
	Total public expenditure on education	2010	2000	2010	2000	
B4.1	As a percentage of total public expenditure	9.3%	9.5%	13.0%	12.6%	31 of 32
	Share of private expenditure on educational institutions	2010	2000	2010	2000	
B3.2a	Pre-primary education	54.8%		17.9%		1 of 28
B3.2a	Primary, secondary and post-secondary non-tertiary	7.0%	10.2%	8.5%	7.1%	18 of 31
B3.2b	Tertiary education	65.6%	61.5%	31.6%	22.6%	4 of 30
B3.1	All levels of education	29.8%	29.0%	16.4%	12.1%	5 of 29
	Schools and Teachers					
	Ratio of students to teaching staff	20	11	20	11	
	Pre-primary education	16 students per teacher		14 students per teacher		14 of 31
D2.2	Primary education	18 students per teacher		15 students per teacher		11 of 35
	Secondary education	13 students per teacher		14 students per teacher		16 of 36
	Total intented instruction time for students (hours)	2011		2011		
D1.1	Primary education	4521 hours		4717 hours		16 of 31
	Lower secondary education	2598	2598 hours		hours	23 of 31
	Number of hours of teaching time per year (for teachers in public institutions)	2011	2000	2011	2000	
	Pre-primary education	m		994 hours		m
D4.2	Primary education	731 hours	635 hours	790 hours	780 hours	21 of 31
	Lower secondary education	602 hours	557 hours	709 hours	697 hours	26 of 30
	Upper secondary education	510 hours	478 hours	664 hours	628 hours	28 of 31
	Index of change in statutory teachers' salaries for teachers with 15 years of experience/minimum training (2000 = 100)	2011	2008	2011	2008	
	Primary school teachers	91	92	120	120	22 of 23
D3.4	Lower secondary school teachers	91	92	116	116	22 of 22
	Upper secondary school teachers	91	92	117	118	22 of 22
	Ratio of teachers' salaries to earnings for full-time, full-year adult workers with tertiary education	2011		2011		
	Pre-primary school teachers	m		0.80		m
D3.2	Primary school teachers	m		0.82		m
	Lower secondary school teachers	m		0.85		m
	Upper secondary school teachers	m		0.89		m

Key Facts for Japan in Education at a Glance 2013

* Countries are ranked in descending order of values.

** Compared to people with upper secondary education; upper secondary = 100.

*** Rates above 100% in the calculation are shown in italics.

'm': data is not available.