

# OECD Report: Education at a Glance 2012

## *EI summary of key findings*

**UNDER EMBARGO UNTIL 11h00 (Paris time) on 11 September 2012**

### Introduction

Education at a Glance (EaG) is a leading annual OECD publication on education systems indicators in OECD and partner countries. The findings of the report are based on a broad range of statistical data and increasingly on data from international comparative studies, such as PISA. The report is a key output within the framework of the OECD's Indicators of Education Systems (INES) programme.

The main purpose of the Education at a Glance reports, according to the OECD, is to address the policy development needs of member governments, providing them, as well as other stakeholders, with selected, reliable, comparative data, organized in a set of indicators. As education policies grow more complex, this task implies more difficulties, challenges and trade-offs. As explained in the foreword, the indicators are constructed to respond to educational issues that are high on national policy agendas and where the international comparative perspective can offer important added value to what can be accomplished through national analysis and evaluation. The indicators are also intended to be as country-specific as is necessary to allow for historical, systemic and cultural differences between countries. Finally, the OECD attempts to present them in as straightforward manner as possible, while keeping the indicators sufficiently complex to reflect multifaceted educational realities. It must be noted that the priorities, defined by OECD, may or may not correspond to the priorities of teaching professionals.

The editorial part of the report evidences two elements which have played a major role in the rapid transformation of the global education and economic landscapes: the ascent of the knowledge economy on one hand and the explosive growth of higher education worldwide on the other hand. However, it states that this year's report – whose statistics mainly correspond to 2009 and in some cases, 2010 – put forward another major factor of change which is the full onset of the global recession during this period. It argues that, although economic and labour markets presenting high level of education well resist when confronted with tough economic conditions, no group or country –no matter how well-educated – has been totally protected from the effects of the worldwide economic downturn.

To begin with, the report significantly insists on the many positive effects a higher level of education presents from an individual as well as a more general perspective: it is a better protection against unemployment compared with lower educated people. In terms of earnings, the analysis shows that the gaps between people with higher education and those with lower levels of education not only remained substantial during the global recession but grew even wider. It puts forward long-term personal economic gain of acquiring a tertiary degree as well as considerable return on the public funds used to help people pursuing higher education, even if clearly mitigated for females when

considering employment rates and earning premiums of tertiary graduates (cf. below p. 4). More surprisingly, it further develops the analysis of social outcomes of education, providing two sub-indicators that measure the impact of higher level of education on life expectancy and on “students’ attitude towards equal rights for ethnic minorities”.

One negative outcome of the analysis, certainly related to the onset and deepening of the global recession is that public expenditure on education as a percentage of total public expenditure decreased in 19 out of 32 individual countries between 2005 and 2009, although it remained at 13% of total public expenditure, on average across OECD countries.

The 2012 report contains eleven indicators on education outputs and their impact on learning, seven indicators on financial and human resources, six indicators on access to education, participation and progress, and seven indicators on the learning environments and organization of schools; thirty one in total. These are organized in four respective chapters. In addition the report contains three annexes, containing characteristics of education systems, reference statistics and sources, methods and technical notes.

While most of the indicators remain markedly consistent over the time, allowing for trend analyses, there are new indicators each year. In the 2012 report, the indicator A6 on reading performance has disappeared; indicator A10 on labour costs of graduates has been replaced by a wider indicator about education’s influence on economic growth, labour costs and earning powers. Indicator A5 on students’ background impact on students’ performance has been broken down into a specific indicator on immigrant students’ performance (A5) and another one on parents’ education influence on access to tertiary education (A6). Similarly, D5 indicator on schools’ accountability has been replaced by indicator D6 on level of decision in education systems and indicator D7 on pathways and gateways to gain access to secondary and tertiary education. A new indicator C2 has been introduced analysing early childhood education systems around the world because of the prominence this issue has gained on OECD countries’ education agenda in recent years. There is also a new indicator D5 presenting the characteristics of the teaching profession (age and gender distribution, pre-service requirements).

### **Educational Institutions outputs & the Impact of Learning**

The first chapter of the Education at a Glance 2011 Report provides a general overview of statistics for enrolment and educational attainment at the secondary, post-secondary non-tertiary and at the tertiary level. Upper-secondary education has remained the normal standard of achievement in all OECD countries, and higher educational achievement has increased across the board. The report examines those educational achievements and the issues that still lie therein; it also provides some suggestions about how to approach those issues to further increase the educational attainment levels of future generations.

One of the main challenges still faced by many OECD countries is the gender aspect even though, when it comes to educational achievement, females tend to have higher numbers of upper-secondary completion than men. A new indicator regarding gender differences in career aspirations and chosen fields of study (indicator A4) underlines the role of traditional perceptions of some careers as typically “male or female-oriented” in the choice of fields of study and consequently,

career paths of males and females. It seems though that gender gaps in this domain have decreased since 2000 which may results from a changing students' perceptions of certain occupations.

As regards the choice of type of education, it appears that in all OECD countries, 59% of all tertiary type A graduates are female even though men are still more likely than women to complete and attain advanced research qualifications. The same goes for professorships, where women remain at the lower levels of education, although they represent 67% of the total of school teachers. Gender equality in teaching professions such as professorships only occurs in 5 OECD countries (Indicator D5).

This year's report also emphasizes the impact of socio-economic background of students on their educational attainment and dedicates two specific indicators to immigrant students' performances (A5) and parents' education influence (A6). It finds that the chance that students whose parents haven't completed upper-secondary level education will attend higher educational programmes themselves is extremely limited, only 30% for students aged 20-34. Instances of students statistically defying these odds has only reportedly occurred in 9 OECD countries. On the contrary, students with at least one upper-secondary educated parent have a better chance of pursuing and succeeding in higher education. This report suggests that previous schooling has had a significant impact for the better on students' higher education pursuit from low-income families as well as for immigrant students and that, in this regard, access to pre-primary education should be widened.

As regards immigrant students, it finds that 1/3 of immigrant students in all OECD countries attend schools with high concentrations of students with poorly educated mothers, or disadvantaged schools. Although all OECD countries seek to successfully integrate immigrants into their school systems; not all of the educational policies in place actually address the adversities that face these immigrant students. Thus, immigrant students tend to fall behind their native peers in test scores by more than 40 points on average, as indicated by the PISA Assessments of 2009. The report explains that immigrant overpopulation of disadvantaged schools perpetuate the decline in immigrant students' education attainment and urges governments to invest more in these schools, by hiring better teachers, reducing class sizes and providing educational staff for the purposes of students' needs, such as tutoring.

Once again, the 2012 OECD report gives a specific attention to social outcomes of education through indicator A11. It shows a clear correlation between life expectancy, crime rates, voting averages, social involvement on one hand and educational attainment levels on the other hand. The report suggests that adults with higher levels of educational achievement typically lead more satisfying lives. Higher levels of education have been proven to account for an increase in the life expectancy years of both men and women, especially in Central Europe. The voting rate has also been shown to be higher in countries where educational attainment levels are higher.

### **Economic benefits of education and impact on the labour market**

A substantial part of the OECD report analyses the economic impact of education for individuals and to a larger extent, the whole society: on participation in the labour market (A7), in terms of earning premiums (A8), financial incentives to invest in education (A9) and impact on economic growth (A10).

The impact of economic conditions on the likelihood that an individual will be employed and have a higher income varies significantly by both educational attainment and gender.

During the recent economic crisis, the increase in the average unemployment rate for individuals without an upper secondary education was 1.1 percentage points higher than for those with at least an upper secondary degree and 2.4 percentage points higher than for those with a tertiary education. Interestingly, the analysis demonstrates that the younger age cohort (25-34 year-olds) without an upper secondary education was also hit harder by the crisis than 55-64 year-olds without an upper secondary education. Throughout its analysis of the impact of the economic crisis on unemployment rates, OECD's interpretation and policy recommendations focuses on education systems matching the skills requirements of the labour market. This approach undermines the concept of education as human right, limiting it to its economic dimension.

Although the gap in the employment rate between men and women narrows among tertiary educated individuals, and despite the fact that women have higher tertiary attainment rates on average across OECD countries, the employment rate of women is far below that of men at all levels of education. Similarly, more education does little to narrow the gender gap in earnings. The difference in full-time earnings between 25-64 year-old men and women is even larger among those with a tertiary education than among those with an upper secondary and post-secondary non-tertiary education. The gender gap in earnings does not narrow over the working life of women with a tertiary education. The report suggests that governments should implement policies boosting the labour market participation of women in order to utilise the skills of women in the workforce more effectively.

When identifying incentives – and disincentives - to invest in education, OECD suggest that “one way to mitigate weak labour market returns is to provide higher education at lower costs for the individual”, by subsidising the direct costs of education or providing students with loans and grants to improve incentives and access to education. It also underlines trade-offs between taxes and the direct costs of education (tuition fees). Indeed, in countries with low or no tuition fees, individuals typically payback public subsidies later in life through progressive tax systems. In countries in which a larger portion of the investment falls on the individual, in the form of tuition fees, earnings differentials tend to be larger, and a larger portion of them goes to the individual.

As regards the impact of education on growth, available data makes clear that highly qualified people generate a positive impact on GDP, even during severe economic recession. Indeed, over the past decade, more than half of the GDP growth in OECD countries is related to labour income growth among tertiary-educated individuals and although GDP shrank by almost 4% across OECD countries in 2009, labour income growth among tertiary graduates still made a positive contribution to GDP of 0.4%. Those with mid-range jobs and skills felt the most severe impact of the 2009 drop in GDP: the labour income growth for those with an upper secondary or post-secondary non-tertiary level of education had a negative impact on GDP of - 0.8%, while those without an upper secondary education had, on average, a more limited negative impact on GDP (-0.5%).

### **Financial & human resources invested in education**

The section on financial and human resources, in line with previous reports, provide statistics on how much is spent per student (Indicator B1), what proportion of national wealth is spent on

education (Indicator B2), how big is public and private investment (Indicators B3 and B4), what tertiary fees are (Indicator B5) and on what these resources are spent (Indicator B6) as well as which factors influence the level of spending (Indicator B7).

On average, OECD countries spend USD 9 252 annually per student from primary through tertiary education: USD 7 719 per primary student, USD 9 312 per secondary student and USD 13 728 per tertiary student (Indicator B1). At the tertiary level, this amount is affected by high expenditure in a few OECD countries – most notably Canada, Switzerland and the United States.

At the primary and secondary levels, expenditure is dominated by spending on core educational services whereas expenditure on R&D at the tertiary level represents 31% of all expenditure per student by tertiary institutions. When excluding activities peripheral to instruction (research and development and ancillary services such as welfare services to students), OECD countries annually spend USD 7 620 from primary through tertiary education, on average. These lower figures result mainly from the much lower expenditure per student at the tertiary level (USD 8 944 in 2009, as compared to USD 9148 in 2008).

The reports highlights that, among the ten countries with the largest expenditure per student by educational institutions in secondary education, high teachers' salaries and low student-teacher ratios are the main factors put forward to explain the level of expenditure (ex: Belgium, Denmark).

Expenditure per primary, secondary and post-secondary non-tertiary student by educational institutions increased in every country with available data, and by an average of more than 36% between 2000 and 2009, a period of relatively stable student enrolment in most countries. Only Hungary and Mexico showed a decrease between 2005 and 2009 in expenditure per primary, secondary and post-secondary non-tertiary student.

During the same period, spending per tertiary student fell in 6 of the 27 countries with available data, as expenditure did not keep up with expanding enrolments at this level. Iceland, Israel and the United States, which saw significant increases in student enrolment between 2000 and 2009, did not increase spending at the same pace as enrolment growth. As a result, expenditure per student decreased in these countries. This is also the case in Brazil, Hungary and Switzerland, where public expenditure per student decreased during this period.

When it comes to total spending in education as part of national wealth (Indicator B2), in 2009, OECD countries spent on average 6.2% of their GDP on educational institutions. This proportion exceeded 7% in Denmark, Iceland, Israel, Korea, New Zealand and the United States. Only 7 of the 37 countries for which data are available spent less than 5%, namely the Czech Republic, Hungary, India, Indonesia, Italy, the Slovak Republic and South Africa. Between 2000 and 2009, expenditure for all levels of education combined increased at a faster rate than GDP growth in almost all countries for which data are available (which was not the case though in France and Israel).

Although the initial impact of the crisis hit at different times and in different degrees, depending on the country, 2009 data also sheds light on the first measures some countries took to respond to the crisis. Between 2008 and 2009, expenditure on educational institutions started to fall only in Belgium, Estonia, Iceland, Italy, Japan and the United States, but the reductions seen in these six countries were smaller than the drop in GDP and interpreted as not necessary linked to the crisis by

OECD. As a result, the share of GDP devoted to education continued to rise. Only Israel shows a decrease in expenditure on educational institutions as a percentage of GDP during this period.

### **Balance between public and private funding of education: Focus on tuition fees**

The report extendedly analyses the evolutions of the balance between public and private financing of education since it turned to be an important policy issue in many OECD countries, especially at the pre-primary and tertiary levels of education, for which full public funding is less common. At these levels, private funding comes mainly from households, raising concerns about equity of access to education. Public funding accounts for 84% of all funds for educational institutions, on average, in OECD countries (Indicator B3). Tertiary institutions and, to a lesser extent, pre-primary institutions obtain the largest proportions of funds from private sources, at 30% and 18%, respectively, although these proportions vary among countries.

Public funding on educational institutions, for all levels combined, increased between 2000 and 2009 in all countries for which comparable data are available. However, more pressure has been put on households to share the cost of education, and private funding increased at an even greater rate in more than three-quarters of countries (most significantly in the Slovak Republic and the United Kingdom). However, many of the OECD countries with the greatest growth in private spending have also had the largest increases in public funding, this indicates that an increase in private spending tends to complement public investment, rather than replace it (in particular, the Czech Republic, Mexico and Poland).

It is significant that, during the period 2005-2009, the proportion public spending devoted to education, as part of total public spending (indicator B4), decreased in 19 out of 32 countries with available data, which may be related to the beginning of the economic crisis in 2008. The decrease was especially substantial in Estonia, Iceland, Mexico, Norway, Poland and Slovenia (1 percentage point or more).

At the tertiary level, the countries with the lowest amounts of public expenditure per student in public and private institutions are also those with the fewest students enrolled in public tertiary institutions, except for Poland and Argentina. For tertiary education, the share of private funding increased by five percentage points, on average, between 2000 and 2009, by more than ten percentage points in Mexico, Portugal, the Slovak Republic and the United Kingdom. The proportion of expenditure on tertiary institutions covered by individuals, businesses and other private sources, ranges from less than 5% in Denmark, Finland and Norway to more than 40% in Australia, Israel, Japan and the United States, and to over 70% in Chile, Korea and the United Kingdom. Of these countries, in Korea and the United Kingdom, most students are enrolled in private institutions and most of the budget of educational institutions comes from tuition fees (more than 70% in Korea, and more than 50% in the United Kingdom).

In eight OECD countries, public institutions charge no tuition fees, but in one-third of OECD countries with available data, public institutions charge annual tuition fees in excess of USD 1 500 for national students. An increasing number of OECD countries are charging higher tuition fees for international students than for national students (ex: Denmark, Sweden), and many also differentiate tuition fees by field of education, largely because of the difference in the public cost of studies or according to labour market opportunities.

## How much are teachers paid?

Burgeoning national debt, spurred by governments' responses to the financial crisis of late 2008, has put pressure on policy makers to reduce government expenditure – particularly on public payrolls. The report acknowledges that even if teachers' salaries represent the largest single cost in school education, policy makers should consider very carefully teachers' salaries as they look both for sustaining quality of education and balanced budget.

Between 2000 and 2010, teachers' salaries increased on average by about 16% at the primary level and 14% at lower secondary level. In most countries, salaries increased less since 2005 than between 2000 and 2005. Notable exceptions are France and Japan, where there was a decline in teachers' salaries in real terms between 2000 and 2010.

The statutory salaries of teachers with at least 15 years of experience average USD 35 630 at the pre-primary level, USD 37 603 at the primary level, USD 39 401 at the lower secondary level and USD 41 182 at the upper secondary level. On average in OECD countries, teachers' salaries at the primary-school level amount to 82% of full-time, full-year earnings for 25-64 year-olds with a tertiary education, while teachers' salaries at the lower secondary level amount to 85% of that benchmark, and teachers' salaries at the upper secondary level amount to 90% of it.

The report states that the financial crisis and the consequent pressure to trim government spending in order to reduce national debt has resulted in cuts in teachers' and other civil-service salaries in Estonia, Hungary and Ireland. In Estonia the statutory salaries in 2009-10 fell back to their 2008 levels. In Hungary, the 13th month of salary (a bonus that was paid to all employees) was suspended in 2009. In Ireland, teachers' salaries were reduced from 1 January 2010 as part of a public service-wide reduction in pay. In other countries, similar measures were implemented after 2010.

OECD reports a trend in linking teachers' performance with financial rewards, as among the 38 countries with available data, half offer an additional payment to teachers for outstanding performance. Two-thirds of the 19 countries that offer an additional payment to reward outstanding teaching do so as incidental payments; 13 countries offer these payments as annual additions to teachers' salaries. In 16 of the 19 countries that offer this performance incentive, the decision to award the additional payments can be made at the school level.

Another important outcome that results from the analysis of the characteristics of the teachers' population (indicator D5 "Who are the teachers?") is the increasing proportion of ageing teachers in many OECD countries that may result in a shortage in the coming years, if no adequate incentives to join the teaching profession is introduced. Between 1998 and 2010, the proportion of secondary teachers aged 50 or older climbed from 28.8% to 34.2% on average among countries with comparable data. This increase is particularly large in Austria, Germany, Ireland, Japan, Norway, Switzerland and the United Kingdom. At the primary level, 58% of teachers are at least 40 years old, on average among OECD countries. The proportion exceeds 70% in the Czech Republic, Germany, Italy and Sweden. The report acknowledges that, considering that large proportions of teachers in several OECD countries set to reach retirement age in the next decade -and the projected increase in the size of the school-age population, such as in Ireland, Israel and Spain- governments will be under pressure to recruit and train new teachers, which means attracting top academic talent to the teaching profession and provide high-quality training to them.

## Access to Education, Participation and Progression

In this chapter, Education at a Glance 2012 gives a broad overview of enrolment trends focusing primarily on the participation figures of tertiary education and its progression. A plausible effect of the crisis, as the unemployment rate soars, is that people are turning more to education especially in Greece, Spain and Iceland. Moreover, the efforts by governments to raise people's level of education have led to significant changes in educational participation. The proportion of 15-29 years-olds not in education and not employed decreased from 16.0% in 1998 to 15.8% in 2010. The report suggests that the demand for education for all is "likely to decrease" amongst 5-14 years old in the next 5-10 years mainly in Eastern Europe.

For the first time, the report gives an overview of foreign students in tertiary education. As the trend of internationalisation of universities is expanding, the number of foreign tertiary students increased by 99% since 2000 and up to 2010. The international students make up 41% of enrolments in tertiary education in Europe and 21% in North America with Oceania, Latin America and Asia closely following. Within the OECD area, EU21 countries host the highest number of foreign students, with 40% of total foreign students worldwide.

As regards adults' access to education (indicator C6), the report also notes that countries with high participation rates in formal and/or non-formal education invest a relatively high percentage of GDP in employer-sponsored non-formal education and have comparatively high total expenditures on all educational institutions. The annual investment in employer-sponsored non-formal education per participant is substantially higher for men than for women, and it increases with the level of educational attainment in all OECD countries.

A new indicator that has been included in this chapter is Indicator C2 "How do early childhood education systems differ around the world". The early childhood education is not common across all OECD countries. While the pre-primary education was nearly universal in countries like Belgium and France, it is not the case for countries like Turkey, where less than 30% of 15 year-olds attended pre-primary education for any period of time and Canada, where less than 50% of pupils attended pre-primary education for more than a year is uncommon.

The data provided in the report indicates that between 2005 and 2010, enrolments in early childhood education programmes have risen from 64% of 3 year-olds to 69% in 2010, and from 77% of 4 year-olds to 81% in 2010.

Publicly funded pre-primary education is more developed in the European than in the non-European countries of the OECD. On average, the expenditure on pre-primary education accounts for 9% of OECD expenditure on education institutions and the level of public expenditure on public pre-primary institutions, per pupil, is more than twice the level of public expenditure on private pre-primary institutions amongst OECD countries. The report argues that the pre-primary institutions obtain the largest proportion of funds from private source at 18%.

As the report reports, in average, there are 14 pupils per teacher at the pre-primary education in OECD countries while the average is slightly higher (20) when the supporting staffs are excluded. Indeed, some countries make extensive use of supporting staff at the pre-primary level, mainly because it represents a much lower cost than proper qualified teachers.

## The learning environment and teaching conditions

The last part of the report concentrates on the learning and teaching conditions such as instruction time, student-teacher ratio, teachers' salary, teaching time and school organization. It gives evidence that working conditions of teachers still must be improved in order to attract and keep teachers in the profession.

The analysis of learning conditions for students shows no significant evolutions between 2000 and 2010, in particular regarding instruction and teaching time. During this period, estimated class sizes decreased on average by 14% at the primary level, most notably in countries that had relatively large classes in 2000 (such as Korea and Turkey), and by 7% at the lower secondary level. Moreover, the range of class size among OECD countries narrowed during this period.

The proportion of working time spent teaching is a valuable indicator, providing information on the amount of time that might be available for non-teaching activities such as lesson preparation, correction, in-service training and staff meetings. Indeed, as suggested in the analysis, large proportion of working time spent teaching may indicate that less time is devoted to tasks such as assessing students and preparing lessons. In most OECD countries with available data, teaching time remained largely unchanged between 2000 and 2010. However, the number of teaching hours changed dramatically in a few countries: it increased by more than 25% in the Czech Republic at the primary level and in Portugal and Spain at the secondary level.

However, in this domain, an outstanding result comes out of the Teaching and Learning International Survey (TALIS), conducted in 23 countries by the OECD since 2008 (p. 476). The findings of this study suggest that there are few differences in the workloads and responsibilities of new and more experienced teachers. While new teachers report participating in less professional development, they also report a greater need for professional development in a number of areas than more experienced teachers (mainly on how to address student discipline and behaviour problems and how to improve their classroom management skills).

In fact, too few OECD countries (only 13) require teachers at some or all levels of instruction to participate in continuing education. However, OECD argues that this number is likely to increase in the coming years as continuing education for teachers takes on new significance with the rising demand for both differentiated instruction to address a wider range of learning styles and the integration of technology to connect the classroom to the outside world.

## Organization of schools

The report states that the division of authority among central/state, regional/local and school administrators over teacher hiring, dismissal, duties, conditions of service, pay, and professional development in public institutions at the lower secondary level varies considerably across OECD countries. Surprisingly, the findings of this section suggest a gradual trend towards centralization and a decrease in decision making at the lowest level between 2003 and 2011. According to OECD, some of the shift towards more centralized decision making can be explained by the heightened interest in measures of accountability that involve national assessments and national examinations, based on centrally established curricula or frameworks.

Indeed, in roughly one-third of OECD countries for which data are available, authority over teacher hiring, dismissal, and duties is highly centralized. In the case of Australia, Austria, Belgium (French Community), France, Luxembourg, Mexico, Spain and Turkey, all such authority rests with state or central administrators, either exclusively or in consultation with school leaders. However, in 18 of 36 countries, more than 50% of decisions about personnel management, including decisions on the hiring and dismissal of staff and on setting salary schedules and conditions of work, remain under the responsibility of the school or local authorities. In general, since 2007, the proportion of decisions taken at the intermediate levels has declined across all countries, except for France, where it increased slightly. The report evidences that participation of teachers' unions in decision making on duties and conditions of work, salary scales and instruction time is notable in Belgium, Denmark, Finland, Iceland, Israel and Sweden (p. 506).

As underlined in the previous version, according to OECD, national assessments and examinations are increasingly used by education authorities to hold schools accountable. It also emphasizes that international assessments like PISA are frequently cited by the media and policy makers. OECD asserts that understanding the requirements associated with the pathways and gateways to secondary and tertiary level education can help explain the differences in country performance on international assessments like PISA. The report suggests that numbers of students that graduate and then go on to pursue tertiary programmes or further vocational training tend to be higher in countries that utilize entrance examinations in admissions of students into upper-secondary educational programmes. Whereas, on the other hand, these countries also have lower rates of students actually pursuing upper-secondary education.

According to a OECD-INES Survey on National Examinations and Access to Secondary and Tertiary Education, carried out in 2011, twenty-three of the 36 countries that reported data had national examinations at the upper secondary level. However, twenty countries reported that there were alternative routes (instead of or in addition to entrance examinations and the factors listed above) that could be used to gain access to the first stage of tertiary education. The Nordic countries have relatively strong traditions of compensatory adult education and the use of alternative routes to encourage adults to enter tertiary education later in life.

In the final part of his editorial statement, Angel Gurría, OECD Secretary General, underlines that "because changes to the global economy affect both countries and individuals, countries should take care to strike a careful balance between providing appropriate public support for education and requiring students and families to cover some of the costs." As demonstrated by several indicators throughout OECD analysis, students and families have been bearing an increasing share of the costs of education in many OECD countries. He warns that "while this general approach is reasonable in that individuals receive many of the benefits of education, it can also lead to scenarios in which individuals face large financial barriers in pursuing more education – a situation that is now the case for people seeking higher education in several OECD countries. In turn, these barriers may impede countries' own goals of increasing educational attainment in their populations."