Equity and Quality in Education

SUPPORTING DISADVANTAGED STUDENTS AND SCHOOLS

OECD

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Please cite this publication as:
OECD (2012), *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*, OECD Publishing.
http://dx.doi.org/10.1787/9789264130852-en

ISBN 978-92-64-13084-5(print)
ISBN 978-92-64-13085-2 (PDF)

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FOREWORD

The highest performing education systems are those that combine equity with quality. They give all children opportunities for a good quality education. This report presents policy recommendations for education systems to help all children succeed in their schooling. It looks into system level and school level policies to promote equity and quality. It also provides evidence on how to support disadvantaged students and schools, as improving opportunities for them benefits education systems and societies as a whole.

School failure penalises a child for life. The student who leaves school without completing upper secondary education or without the relevant skills has fewer life prospects. This can be seen in lower initial and lifetime earnings, more difficulties in adapting to rapidly changing knowledge-based economies, and higher risks of unemployment. The same child is also less likely to take up further learning opportunities and less able to participate fully in the civic and democratic aspects of modern societies.

Educational failure also imposes high costs on society. Poorly educated people limit economies' capacity to produce, grow and innovate. School failure damages social cohesion and mobility, and imposes additional costs on public budgets to deal with the consequences – higher spending on public health and social support and greater criminality, among others. For all these reasons, improving equity in education and reducing school failure should be a high priority in all OECD education policy agendas.

The evidence shows that equity can go hand-in-hand with quality; and that reducing school failure strengthens individuals' and societies' capacities to respond to recession and contribute to economic growth and social wellbeing. This means that investing in high quality schooling and equal opportunities for all from the early years to at least the end of upper secondary is the most profitable educational policy. Students who have enriching school experiences will be more likely to stay in education and successfully transfer to the labour market. Those who struggle at early stages but receive adequate, timely support and guidance have higher probabilities of finishing, despite any difficulties in their family or social background.

The current economic recession adds urgency to the task, with greater unemployment and increasing demand for higher level skills. Yet, while most education ministries highlight the reduction of school failure as a priority, OECD countries show little consistency in their policies and practices to support low performing disadvantaged schools and students. Challenges remain as to what types of policies and practices work best, and how to implement them.

This comparative report gives evidence on the policy levers that can help overcome school failure and reduce inequities in OECD education systems. It focuses on the reasons why investing in overcoming school failure -early and up to upper secondary- pays off (Chapter 1), on alternatives to specific system level policies that are currently hindering equity (Chapter 2), and on the actions to be taken at school level, in particular in low performing disadvantaged schools (Chapter 3).

The report is the result of the thematic review, *Overcoming School Failure: Policies that Work* and it builds on the conceptual framework developed in OECD's *No More Failures: Ten Steps to Equity in Education* (2007) (see details of the review in Annex 1). Within the OECD Secretariat, Francisco Benavides, Pauline Musset, Anna Pons Vilaseca and Beatriz Pont are the authors of the report, and Elvira Berrueta-Imaz was responsible for the administration and layout of the report. All background reports, working papers and additional information on the review are available on the website: www.oecd.org/edu/equity.

The authors are indebted to the countries who took part in the study - Austria, Canada (Manitoba, Ontario, Québec and Yukon), Czech Republic, France, Greece, Ireland, Netherlands, Spain and Sweden - and their national coordinators for their support and guidance. In addition, Nancy Hoffman (Jobs for the Future, USA), Brenton Faubert (CMEC, Canada), Cecilia Lyche (seconded from the Directorate for Education, Norway) and Elizabeth Leisy (Doctoral Student, Harvard Graduate School of Education) contributed to the review with their analytical expertise.

Within OECD, Bernard Hugonnier, Deputy Director for Education, Deborah Roseveare Head of the Education and Training Policy Division and Senior Analysts, Inyup Choi, Simon Field, David Istance, Paulo Santiago and Oscar Valiente provided valuable insights to our work and Cassandra Davis and Anne-Lise Prigent contributed to the communications of the report. Peter Chambers, edited the English version, and Caroline Champin undertook the French translation. We are also grateful to Jaume Bofill Foundation and Anna Jolonch and Ismael Palacín, for its support to this initiative, and to the Ministry of Education, Culture and Sciences of the Netherlands, and Ype Akkerman and Marcel Smits Van Waesberghe for hosting a key working meeting in 2011.

Barbara Ischinger, Director for Education

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EXECUTIVE SUMMARY

Reducing school failure pays off for both society and individuals. It can also contribute to economic growth and social development. Indeed the highest performing education systems across OECD countries are those that combine quality with equity. Equity in education means that personal or social circumstances such as gender, ethnic origin or family background, are not obstacles to achieving educational potential (fairness) and that that all individuals reach at least a basic minimum level of skills (inclusion). In these education systems, the vast majority of students have the opportunity to attain high level skills, regardless of their own personal and socio-economic circumstances.

OECD countries face the problem of school failure and dropout

Across OECD countries, almost one of every five students does not reach a basic minimum level of skills to function in today's societies (indicating lack of inclusion). Students from low socio-economic background are twice as likely to be low performers, implying that personal or social circumstances are obstacles to achieving their educational potential (indicating lack of fairness). Lack of inclusion and fairness fuels school failure, of which dropout is the most visible manifestation – with 20% of young adults on average dropping out before finalising upper secondary education.

Improving equity and reducing school failure pays off

The economic and social costs of school failure and dropout are high, whereas successful secondary education completion gives individuals better employment and healthier lifestyle prospects resulting in greater contributions to public budgets and investment. More educated people contribute to more democratic societies and sustainable economies, and are less dependent on public aid and less vulnerable to economic downturns. Societies with skilled individuals are best prepared to respond to the current and future potential crises. Therefore, investing in early, primary and secondary education for all, and in particular for children from disadvantaged backgrounds, is both fair and economically efficient.

Policies require investing in students early and through upper secondary education

In the path to economic recovery, education has become a central element of OECD countries' growth strategies. To be effective in the long run, improvements in education need to enable all students to have access to quality education early, to stay in the system until at least the end of upper secondary education, and to obtain the skills and knowledge they will need for effective social and labour market integration.

One of the most efficient educational strategies for governments is to invest early and all the way up to upper secondary. Governments can prevent school failure and reduce dropout using two parallel approaches: eliminating system level practices that hinder equity; and

targeting low performing disadvantaged schools. But education policies need to be aligned with other government policies, such as housing or welfare, to ensure student success.

Avoid system level policies conducive to school and student failure

The way education systems are designed can exacerbate initial inequities and have a negative impact on student motivation and engagement, eventually leading to dropout. Eliminating system level obstacles to equity will improve equity and benefit disadvantaged students, without hindering other students' progress. Five recommendations can contribute to prevent failure and promote completion of upper secondary education:

1. Eliminate grade repetition

Grade repetition is costly and ineffective in raising educational outcomes. Alternative strategies to reduce this practice include: preventing repetition by addressing learning gaps during the school year; automatic promotion or limiting repetition to subject or modules failed with targeted support; and raising awareness to change the cultural support to repetition. To support these strategies, complementary policies need to reinforce schools and teachers' capacities to respond appropriately to students' learning needs, and to provide early, regular and timely support. Decreasing grade retention rates also requires raising awareness across schools and society about the costs and negative impact on students and setting objectives and aligning incentives for schools.

2. Avoid early tracking and defer student selection to upper secondary

Early student selection has a negative impact on students assigned to lower tracks and exacerbates inequities, without raising average performance. Early student selection should be deferred to upper secondary education while reinforcing comprehensive schooling. In contexts where there is reluctance to delay early tracking, suppressing lower-level tracks or groups can mitigate its negative effects. Limiting the number of subjects or duration of ability grouping, increasing opportunities to change tracks or classrooms and providing high curricular standards for students in the different tracks can lessen the negative effects of early tracking, streaming and grouping by ability.

3. Manage school choice to avoid segregation and increased inequities

Providing full parental school choice can result in segregating students by ability, socio economic background and generate greater inequities across education systems. Choice programmes can be designed and managed to balance choice while limiting its negative impact on equity. There are different options possible: introducing controlled choice schemes can combine parental choice and ensure a more diverse distribution of students. In addition, to ensure balance, incentives to make disadvantaged students attractive to high quality schools, school selection mechanisms and vouchers or tax credits can be alternative options. Policies are also required to improve disadvantaged families' access to information about schools and to support them in making informed choices.

4. Make funding strategies responsive to students' and schools' needs

Available resources and the way they are spent influence students' learning opportunities. To ensure equity and quality across education systems, funding strategies should: guarantee access to quality early childhood education and care (ECEC), especially for

disadvantaged families; use funding strategies, such as weighted funding formula, that take into consideration that the instructional costs of disadvantaged students may be higher. In addition it is important to balance decentralisation/local autonomy with resource accountability to ensure support to the most disadvantaged students and schools.

5. Design equivalent upper secondary education pathways to ensure completion

While upper secondary education is a strategic level of education for individuals and societies, between 10 and 30 percent of young people starting do not complete this level. Policies to improve the quality and design of upper secondary education can make it more relevant for students and ensure completion. To this end there are different policy options: making academic and vocational tracks equivalent by improving the quality of vocational education and training, allowing transitions from academic to vocational studies and removing dead ends; reinforcing guidance and counselling for students and designing targeted measures to prevent dropout - such as additional pathways to obtain an upper secondary qualification or incentives to stay in school until completion.

Help disadvantaged schools and students improve

Schools with higher proportions of disadvantaged students are at greater risk of challenges that can result in low performance, affecting education systems as a whole. Low performing disadvantaged schools often lack the internal capacity or support to improve, as school leaders and teachers and the environments of schools, classrooms and neighbourhoods frequently fail to offer a quality learning experience for the most disadvantaged. Five policy recommendations have shown to be effective in supporting the improvement of low performing disadvantaged schools:

1. Strengthen and support school leadership

School leadership is the starting point for the transformation of low performing disadvantaged schools but often, school leaders are not well selected, prepared or supported to exercise their roles in these schools. To strengthen their capacity, school leadership preparation programmes should provide both general expertise and specialised knowledge to handle the challenges of these schools. Coaching, mentoring and networks can be developed to further support leaders to achieve durable change. In addition, to attract and retain competent leaders in these schools, policies need to provide good working conditions, systemic support and incentives.

Support for restructuring schools should be considered whenever necessary. Splitting low performing disadvantaged schools, merging small ones and closing recurrently failing ones can be policy options in certain contexts.

2. Stimulate a supportive school climate and environment for learning

Low performing disadvantaged schools are at risk of difficult environments for learning. Policies specific for these schools need focus more than other schools on the following: prioritise the development of positive teacher-student and peer relationships; promote the use of data information systems for school diagnosis to identify struggling students and factors of learning disruptions; adequate student counselling, mentoring to support students and smoother their transitions to continue in education. In addition, these schools may benefit from alternative organisation of learning time, including the duration of the school week or

year, and in terms of the size of schools. In some cases, creating smaller classrooms and schools can be a policy to reinforce student-student and student-teacher interactions and better learning strategies.

3. Attract, support and retain high quality teachers

Despite the large effect of teachers on student performance, disadvantaged schools are not always staffed with the highest quality teachers. Policies must raise teacher quality for disadvantaged schools and students by: providing targeted teacher education to ensure that teachers receive the skills and knowledge they need for working in schools with disadvantaged students; providing mentoring programmes for novice teachers; developing supportive working conditions to improve teacher effectiveness and increase teacher retention; and develop adequate financial and career incentives to attract and retain high quality teachers in disadvantaged schools.

4. Ensure effective classroom learning strategies

Often, there are lower academic expectations for disadvantaged schools and students, while there is evidence that certain pedagogical practices can make a difference for low performing students. To improve learning in classrooms, policies need to ensure and facilitate that disadvantaged schools promote the use of a balanced combination of student-centred instruction with aligned curricular and assessment practices. Schools and teachers should use diagnostic tools and formative and summative assessments to monitor children's progress and ensure they are acquiring good understanding and knowledge. Ensuring that schools follow a curriculum promoting a culture of high expectations and success is highly relevant.

5. Prioritise linking schools with parents and communities

Disadvantaged parents tend to be less involved in their children's schooling, for multiple economic and social reasons. Policies need to ensure that disadvantaged schools prioritise their links with parents and communities and improve their communication strategies to align school and parental efforts. The more effective strategies target parents who are more difficult to reach and identify and encourage individuals from the same communities to mentor students. Building links with the communities around schools, both business and social stakeholders, can also strengthen schools and their students.

CHAPTER 1.
INVESTING IN EQUITY IN EDUCATION PAYS OFF

This chapter focuses on why improving equity in education and preventing school failure is cost-beneficial, even more in the context of the current economic crisis. Inequitable education policies and practices have a negative impact on individuals and also limit economic and social development. Often, inequities hamper the educational achievement of specific population groups such as students from lower socio-economic backgrounds or migrant students, and the crisis may have worsened this situation.

The chapter first reviews what the report refers to by equity in education, school failure and dropout. It follows with evidence on the economic and social benefits of reducing school failure and investing in equity in education. It emphasises that investing early in all students - and more specifically in students from disadvantaged contexts – and supporting them through upper secondary education pays off, especially in times of budgetary constraints. It reviews how the current recession has brought education to the forefront, highlighting the potential risks of increasing inequities and school failure for individuals and for young people in their transition from education to the labour market. The chapter ends by outlining the key policy implications for governments to consider, which are developed further in later chapters.

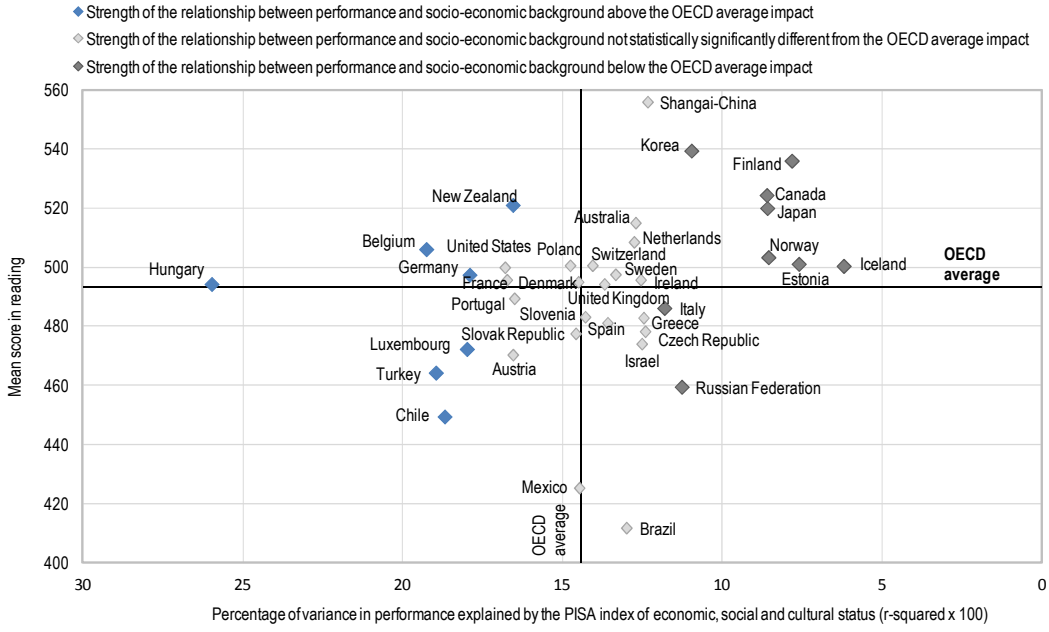
Children's life chances are strongly influenced by the quality of their education. Schools aim at providing children with knowledge, skills and interpersonal competences required for their development, adult life and contributions to economy and society. Schools can offer learning experiences that a child may not obtain at home, particularly if he or she is living in a disadvantaged environment (Heckman, 2008; Heckman, 2011). However despite efforts by governments to provide high quality education, significant disparities in educational outcomes continue to exist in OECD countries. A large number of students fail to obtain a minimum level of education, jeopardising their own future and the progress of their society.

OECD countries' education goals for their youth are ambitious: providing enriching learning opportunities to all from the early years and until at least the end of upper secondary education. The OECD report *No More Failures: Ten Steps to Equity in Education* (Field, Kuczera and Pont, 2007) already highlighted this. More recently, OECD ministers of education have signalled the importance of offering all children a strong start in life, including high quality schooling until the end of secondary education. "We need to provide a range of alternatives in (lower) secondary education and upper secondary for all, without making education systems too easy. This does not imply lowering the bar. We aim to make our education systems more inclusive, by developing mechanisms whereby we can ensure that everyone succeeds by providing tailored approaches" (OECD, 2009). This is a major challenge, but a stepping stone towards cohesive societies and competitive economies.

The evidence is conclusive: equity in education pays off. The highest performing education systems[1] across OECD countries are those that combine high quality and equity. In such education systems, the vast majority of students can attain high level skills and knowledge that depend on their ability and drive, more than on their socio-economic background (see Figure 1.1). This chapter analyses how the benefits of investing in equity in education outweigh the costs for both individuals and societies and why equity can and should go hand-in-hand with quality. Furthermore it shows that investing in equity in education is economically efficient, in particular if investments are made early on. It also explains how reducing dropout and reinforcing secondary education quality and completion give high returns in both short and long term. In the current context of international economic recession, this evidence becomes more relevant than ever.

Figure 1.1. High performing education systems combine equity with quality

Strength of the relationship between performance and socio-economic background (PISA 2009)



How to read this chart: This graph shows the extent to which student performance is determined by socio-economic differences by plotting the average level of performance (y-axis) and the variance in performance explained by the socio-economic background of students (x-axis). In countries located at the right quadrants, socio-economic factors have an impact on performance lower than the OECD average. In countries located at the top quadrants, the mean score of all students is higher than OECD average. There are some countries that combine both high performance and equity. For example in Finland, as in all the countries of the top-right quadrant, students perform higher and are less affected by their home background than the OECD average. Non OECD member economies are included for comparison.

Source: OECD (2011a), Education at a Glance 2011: OECD Indicators, OECD, Paris.

StatLink *http://dx.doi.org/10.1787/888932560816*

Equity in education and school failure: key challenge in OECD countries

OECD education systems can be more equitable

Equity in education can be defined in many different ways. Building on the conceptual framework defined in the OECD Report *No More Failures*, equity in education can be seen through two dimensions: fairness and inclusion (Field, Kuczera and Pont, 2007).[2] Equity as **inclusion** means ensuring that all students reach at least a basic minimum level of skills. Equitable education systems are fair and inclusive and support their students to reach their learning potential without either formally or informally pre-setting barriers or lowering expectations. Equity as **fairness** implies that personal or socio-economic circumstances, such as gender, ethnic origin or family background are not obstacles to educational success.

An **equitable education system** can redress the effect of broader social and economic inequalities. In the context of learning, it allows individuals to take full advantage of education and training irrespective of their background (Faubert, 2012; Field, Kuczera and Pont, 2007; Woessmann and Schütz, 2006).

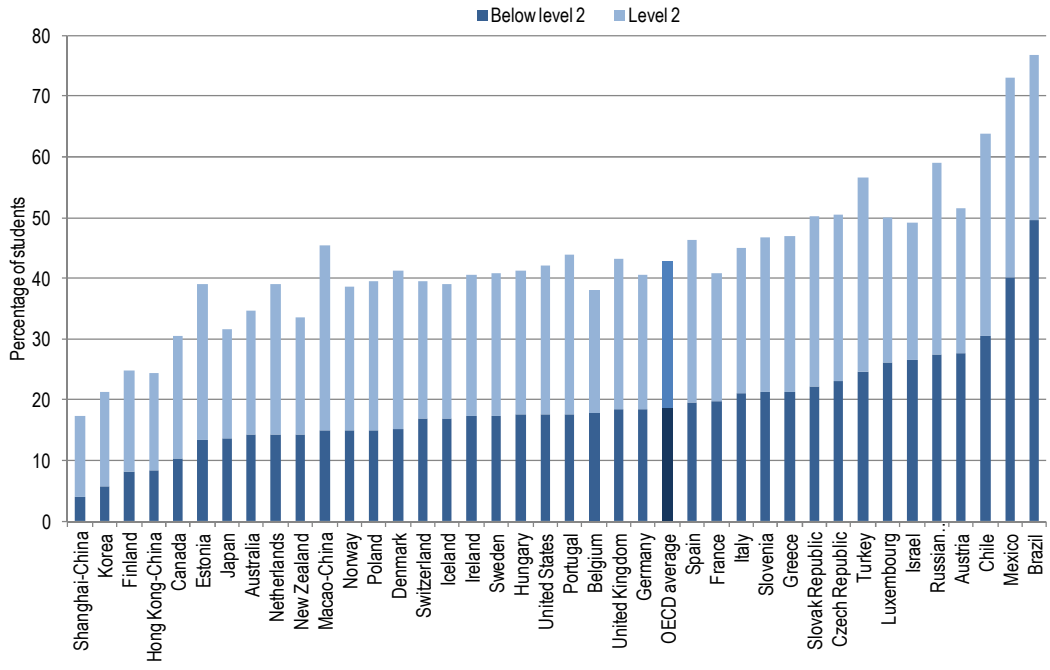
The OECD Programme for International Student Assessment (PISA hereafter) serves as a valuable indicator, as it measures students' skills at age 15, between lower and upper

A corrigendum has been issued for this page. See: http://www.oecd.org/dataoecd/48/16/49631046.pdf

secondary education. In terms of inclusion, Figure 1.2 shows that around 19% of 15-year-old students scored below Level 2 in reading on the 2009 PISA test, which signals that almost 1 out of five youngsters across OECD countries lacks basic literacy skills[3], and in some countries this proportion even exceeded 25%. Moreover, over 40% of students in OECD countries only reached reading proficiency Level 2.[4] It is very likely that those lacking basic skills at this age will either drop out from the education system and not finish upper secondary school, entering the workforce with low skills and unprepared, or will continue studying but struggling more than their peers and needing additional (and more expensive) support.

Figure 1.2. A significant number of students do not master basic skills

15 year old students attainment at Level 2 or below Level 2 of the PISA reading scale (2009)



How to read this chart: The bars show the percentage of students that obtained scores below Level 2 (dark blue) or at Level 2 (light blue) of the PISA scale. Countries are ranked in ascending order of the percentage of students with scores below Level 2. For example in Canada, 10% of students did not attain Level 2 and 20% attained this level, which amounts to a total of 30%. Non OECD member economies are included for comparison.

Source: OECD (2010a), *PISA 2009 Results: Volume II, Overcoming Social Background: Equity in Learning Opportunities and Outcomes*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932560835

In terms of fairness, there is much evidence showing that students' background has an impact on their academic achievement, and this is the case across OECD countries. Figure 1.3 shows that students with low parental education, low socio-economic status, first or second generation immigrant background, as well as boys have higher risk of low performance.

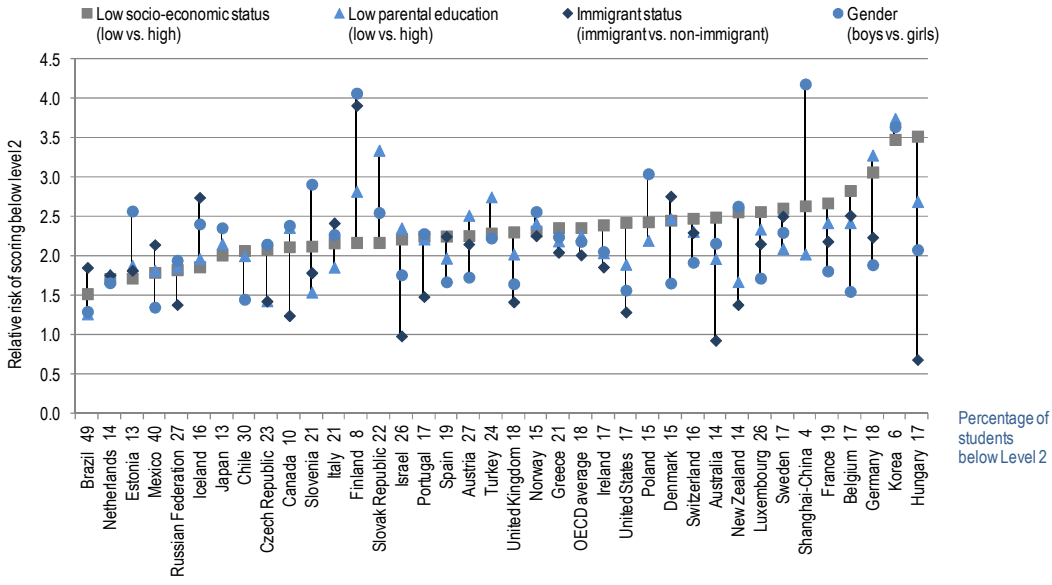
These two dimensions of equity, fairness and inclusion, overlap. Often, low socio-economic background and low performance converge in specific population groups; disadvantaged students are at higher risk of low performance than their more advantaged peers. For instance, evidence from PISA indicates that a 15-year-old student from a relatively

A corrigendum has been issued for this page. See: http://www.oecd.org/dataoecd/48/16/49631046.pdf

disadvantaged home is 2.37 times more likely to score below Level 2 in the PISA reading proficiency scale than a student from an affluent family.

Figure 1.3. How many students are at risk of low performance?

PISA scores below Level 2 and relative risk of certain student sub-groups (2009)



How to read this chart: This chart shows the impact of personal factors on the risk of low performance. Countries are ranked in descending order of the impact of low socio-economic status and the percentage of students with score below Level 2 is indicated in the country labels. A relative risk of scoring below Level 2 higher than 1 indicates that the factor considered increases the likelihood of scoring below this level, while a risk under 1 points in the opposite direction. For example, in Hungary students with an immigrant background outperform natives and, as seen in the chart, their risk of scoring below level 2 is lower. However, students of low socio-economic status have a 3.5 times higher risk of scoring below level 2 than their peers from high socio-economic status. Non OECD member economies are included for comparison

Source: OECD (2010a), *PISA 2009 Results: Volume II, Overcoming Social Background: Equity in Learning Opportunities and Outcomes,* OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932560854

Every OECD education system suffers from school failure and student dropout

An emerging viewpoint across OECD countries is that education systems must provide successful educational outcomes for all students. Increasingly, it is no longer seen as adequate to provide equal access to the same "one size fits all" educational opportunity. More and more, the focus is shifting towards providing education that promotes equity by recognising and meeting different educational needs (Faubert, 2012).

The idea that students fail because of their own personal shortcomings (academic or otherwise) is being superseded by the idea of school failure. The cause of – and responsibility for – students' failure is now seen increasingly as a deficient or inadequate provision of education by schools, and by extension, school systems (See Box 1.1). It is the failure of schools to provide education appropriate to different needs that leads students to fail. In this way school failure is, therefore, also an issue of equity (Faubert, 2012; Field, Kuczera and Pont, 2007). Reorienting educational systems towards the goal of promoting equity is advanced as the necessary redress of student failure (Faubert, 2012; Field, Kuczera and Pont, 2007; Heckman, 2011).

Box 1.1. School failure: definition

From a **systemic perspective**, school failure occurs when an education system fails to provide fair and inclusive education services that lead to enriching student learning. At the **school level**, school failure can be defined as the incapacity of a school to provide fair and inclusive education and an adequate learning environment for students to achieve the outcomes worthy of their effort and ability. From an **individual perspective**, school failure can be defined as the failure of a student to obtain a minimum level of knowledge and skills, which can at the extreme lead to dropping out of school.

Source: Field, S., M. Kuczera and B. Pont (2007), *No More Failures: Ten Steps to Equity in Education*, Education and Training Policy, OECD, Paris.

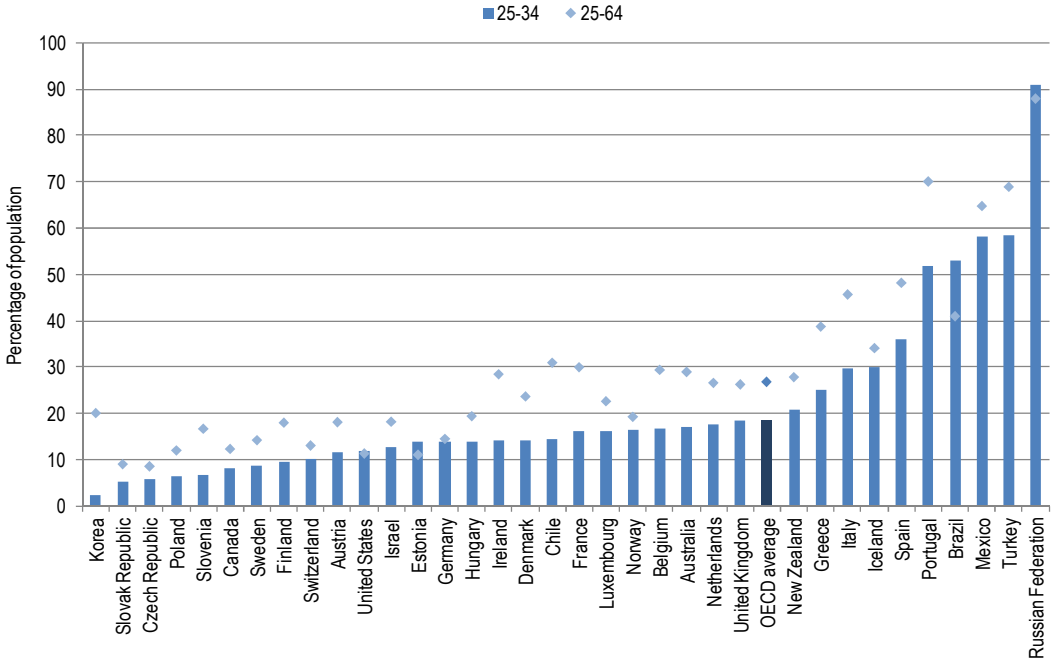
The increasing responsibility given to education systems is in line with the important role that education can play in breaking the link between socio-economic background and life prospects. However, low education performance and dropout may be caused by factors on which schools or education systems can have little or no influence, such as child poverty or place of residence. For example, the overrepresentation of disadvantaged students in certain schools is often the result of residential segregation and, although the design of school choice programmes should take equity into consideration, urban policies are also of vital importance. Therefore success in improving equity in education also depends upon other policies (*e.g.* health, housing, welfare, justice, social development), which reinforces the importance of fostering the links between these areas. While the education system is responsible for giving students the opportunities for educational achievement, other government policies also need to be aligned to ensure student success.

All OECD countries face the problem of school failure and its most visible manifestation: dropout, which refers to young people not finalising upper secondary education, either by not completing the level or by not achieving the required certificate (Lyche, 2010).[5] The percentage of 25-34 years-olds that have not attained upper secondary education reaches almost 20% of young people across OECD countries, as shown in Figure 1.4, although it varies markedly, from 3% in Korea to 62% in Turkey.

A corrigendum has been issued for this page. See: http://www.oecd.org/dataoecd/48/16/49631046.pdf

Figure 1.4. How many individuals have not attained at least upper secondary education?

Proportion of 25-34 and 25-64 years-old who have not completed upper secondary education (2009)



How to read this chart: The graph shows the percentage of population from 25 to 34 years (bars) or 25 to 64 years (dots) that have not attained at least upper secondary education. For example, in Spain only half of the 25 to 64 year-olds has attained upper secondary education, but younger age groups have significantly higher attainment rates as shown by the 25 to 34 year-olds. Non OECD member economies are included for comparison

Source: OECD (2011a), *Education at a Glance 2011: OECD Indicators*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932560873

Student dropout does not happen overnight. In fact dropping out is usually the result of a long process of student disengagement (Lyche, 2010). Research identifies six key predictors of student dropout that when combined can help to effectively identify students who will very likely leave the school system (see Figure 1.5). These predictors are:

- **Educational performance** is the highest predictor for dropout, as low grades are a signal of lower preparation to progress through the educational system (Lyche, 2010). However educational results are the visible part of the iceberg, since the reasons for low performance and for eventually dropping out are linked to other factors that can be more difficult to identify.

- **Students' behaviour** matters for success in school. Students who are engaged, both in academic and social matters, and value schooling tend to stay in school. In OECD countries, 25% of 15-year-old students do not value success at school (OECD, 2011a). Evidence indicates that students direct their attention away from learning when they experience negative emotions. Additional behaviours such as drug or alcohol abuse and juvenile delinquency are also associated with lower performance (Boekaerts in Dumont, Istance and Benavides, 2010; Pfeiffer and Cornelissen, 2010).

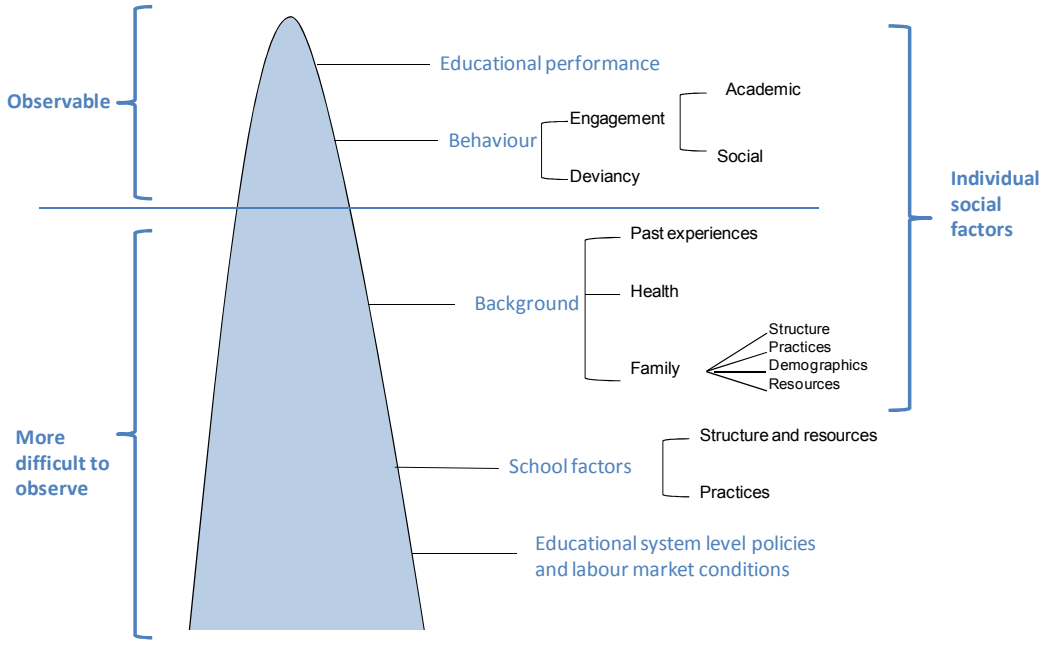
- The **background of students and family** exerts an important influence on their performance. Students from families with low education, negative attitudes towards schooling, inability to support their children, or poverty stricken single parents have a higher likelihood of dropping out. Evidence indicates that family environments have deteriorated over the past decades (Heckman, 2011). The number of children living in households earning less than 50% of a country's median income increased in the decade up to the mid-2000s in most countries (OECD, 2008), particularly in Austria, Germany, Luxembourg and Turkey. Today a greater proportion of children are being born into disadvantaged families, many of them from minorities and immigrant backgrounds (Heckman, 2011).

- **School structures**, **resources and practices** also matter greatly. The way learning is delivered, extra-curricular activities, discipline, relations with peers and teachers and some pedagogic practices have a strong impact on students' learning, motivation and sense of belonging.

- Some **educational system level policies** such as early tracking, grade repetition or specific issues such as the lack of sufficient apprenticeship places or school violence can contribute to increased dropout. (Bridgeland, Dilulio and Morison, 2006; Markussen, 2010).

- **Labour market conditions** have an impact on dropout. For instance some regional and seasonal labour markets (*e.g.* tourism, construction) can attract young people out of school into unskilled jobs with poor prospects. The availability of such jobs and the prospect of earning money early, either to improve the economic situation of the family or to enable the young person to become more independent, motivate many young people to leave school prematurely (European Commission, 2011). However, education systems may be designed in a way that gives these youngsters the incentives either to stay in education or to return to it at a later stage.

Figure 1.5. The iceberg of low performance and school failure

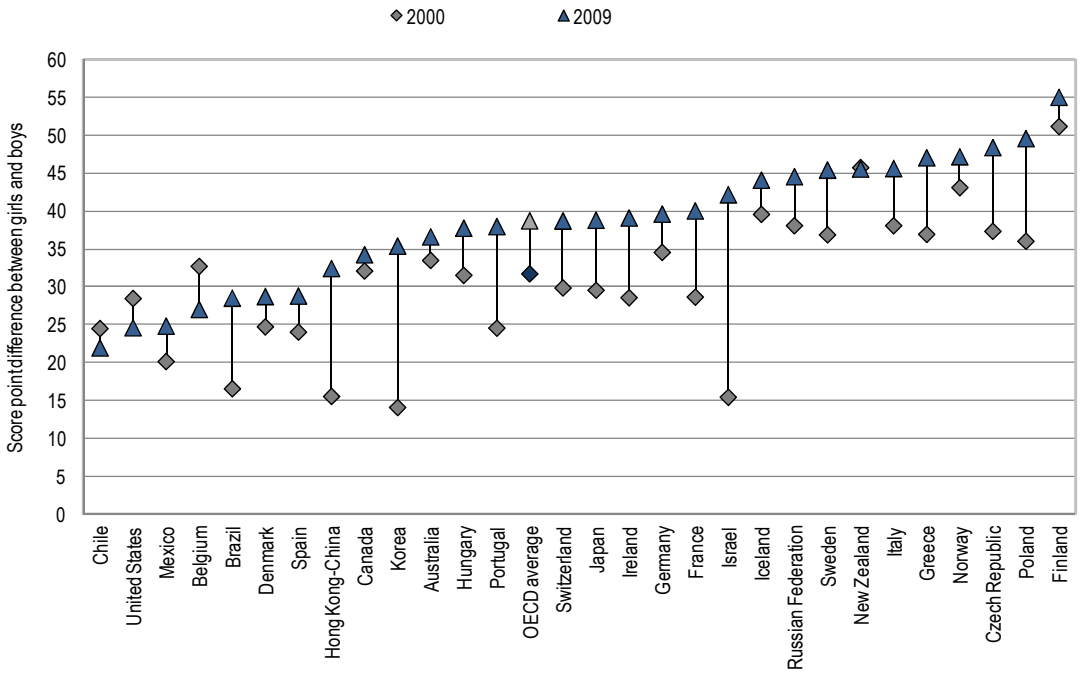


Some groups are more at risk of low performance than others

Even if socio-economic status is a stronger predictor of educational success, other students' personal factors also have an impact on their likelihood of low education achievement and the risk of dropping out. Gender matters and girls tend to outperform boys. The educational gender gap has widened in most OECD countries since the year 2000 (OECD, 2010b) as shown in Figure 1.6. On average across OECD countries, 15-year-old boys were about one-and-a-half times more likely to have low reading scores than girls (OECD, 2011a). The difference in score points is equivalent to one school year. A recent European Union study concluded that the differences between boys and girls in attainment appear early on and that boys are more likely to repeat school years than girls (Eurydice, 2010). Boys predominate among early school leavers and a higher proportion of girls receive an upper secondary school qualification. Girls usually obtain higher grades and higher pass rates in school leaving examinations, which, in turn, helps them to enter desired university programmes.

Figure 1.6. Girls outperform boys and the gender gap is widening

Gender differences in reading performance in PISA



How to read this chart: The chart shows the difference in reading performance between girls and boys and the trend observed between 2000 (rhombuses) and 2009 (triangles). Countries are ranked in ascending order by the difference observed in 2009. For example in Sweden, girls obtained 46 score points more in reading on average in the 2009 PISA Assessment, which is roughly equivalent to one year of schooling, while in 2000 the difference amounted to only 37 score points. Non OECD member economies are included for comparison

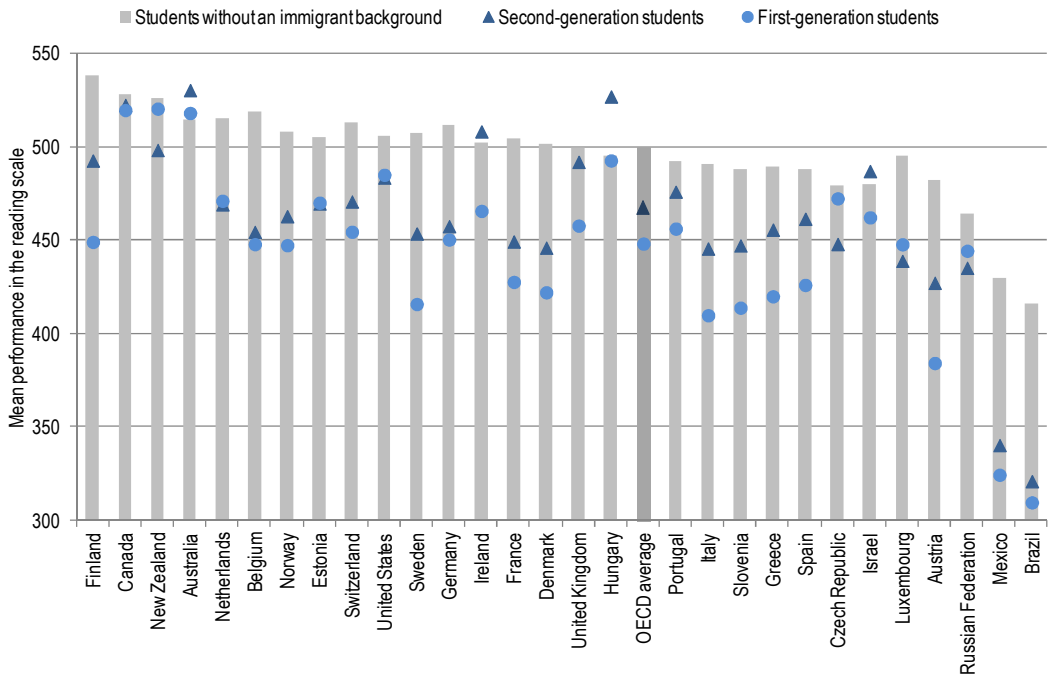
Source: OECD (2010a), *PISA 2009 Results: Volume II, Overcoming Social Background: Equity in Learning Opportunities and Outcomes,* OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932560892

Students with an immigrant background tend to have lower education performance than native students in most OECD countries even after taking into account their socio-economic background, a difference that in some countries is equivalent to 1.5 years of schooling (Figure 1.7). They are also more likely to drop out of school and to leave school earlier. For European Union countries, the probability that a young immigrant will drop out is more than double than for a native student (European Commission, 2010). Students with a second-generation immigrant background tend to outperform first generation ones, but although they are born and educated in the country, they are still far from performing like their native peers in most OECD countries. Yet, in certain countries, Australia and Canada for example, there are no performance differences on average between immigrant and native students. However, even such good results can hide a high heterogeneity among immigrant students: while some immigrant students outperform native students, others fall behind.[6]

Figure 1.7. A considerable reading gap between immigrant students and natives

Reading performance by immigrant status in PISA (2009)



How to read this chart: This chart shows performance differences between natives (bars), first-generation students (blobs) and second-generation students (triangles). Countries are ranked in descending order of the mean score of all students, which is shown next to the country label. For example, in Italy students without an immigrant background performed 45 points higher than those who were born in the country but whose parents are foreign-born (second-generation) students, which is equivalent to one school year. Also, students without an immigrant background obtained 81 score points more than students who are foreign-born and whose parents are also foreign-born (first-generation). Non OECD member economies are included for comparison.

Source: OECD (2010a), *PISA 2009 Results: Volume II, Overcoming Social Background: Equity in Learning Opportunities and Outcomes,* OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932560911

Many education systems also struggle to provide quality education to groups that are difficult to reach, such as aboriginal people, some minorities and nomadic communities (*e.g.* Roma, Travellers, Maori). The dropout rate for Roma students in Europe for example is particularly high. In a number of countries they face discrimination within the education system, and their learning gaps are dealt with by moving those facing difficulties out of mainstream education, which can further increase segregation and disparities in educational achievement (Field, Kuczera and Pont, 2007; European Commission, 2010). In addition, they tend to suffer from weaker family support and have more limited access to learning opportunities outside compulsory schooling (European Commission, 2011).

Equity in education can contribute to economic competitiveness and social cohesion

The costs of inequity and school failure are high for individuals and societies, and are expensive and difficult to remedy later. Investing in equity in education and in reducing dropout pays off. This section reviews how fostering equity in education can contribute to improving economic, social and individual outcomes. It also explains the importance of providing quality education from the early years, and why this is economically efficient.

A corrigendum has been issued for this page. See: http://www.oecd.org/dataoecd/48/16/49631046.pdf

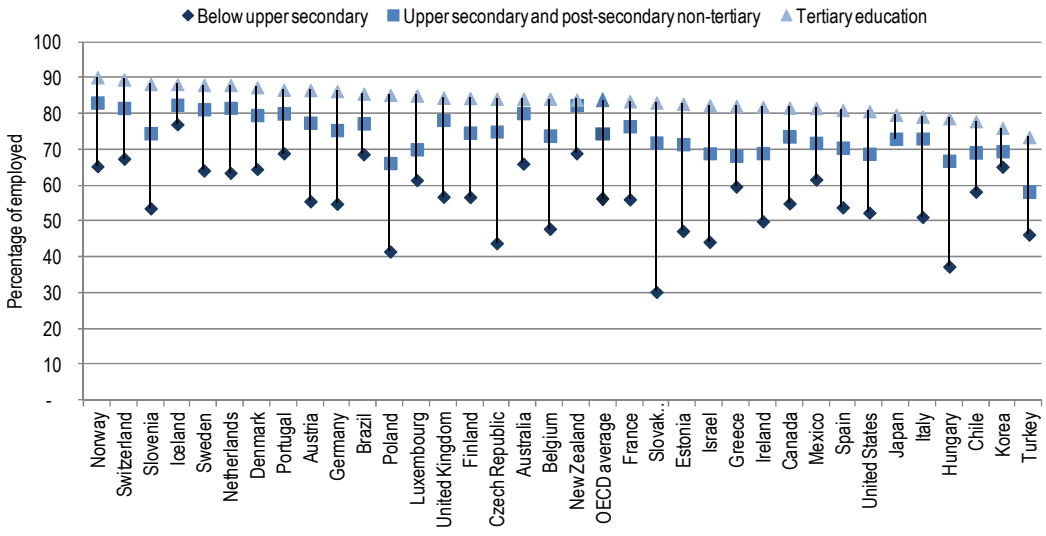
Preventing school failure to secure a productive workforce and economic growth

Levering up the skills of individuals increases their employability and productivity. More broadly, cognitive skills of individuals have been strongly associated with economic growth over the last four decades (Hanushek and Woessmann, 2009). Education has also been associated with entrepreneurship and thus with increasing social mobility (OECD, 2010c).

Underdeveloped human capital hampers productivity growth and limits the effective and full use of resources (Heckman, 2011). Individuals with lower education levels typically have higher unemployment risks, less stable jobs and more difficulties in facing the economy's demands for ever-increasing flexibility and to cope with technological transitions. As Figure 1.8 shows, in OECD countries 84% of the population with a tertiary education were employed in 2009, while only 56% of those who had not completed an upper secondary education had a job (OECD, 2011a).

Figure 1.8. More education offers more employment opportunities

Percentage of 25-64 year-olds in employment relative to the population of this age group (2009)



How to read this chart: This chart shows the percentage of individuals 25 to 64 employed by educational level in relation to their population in this age group. Countries are ranked in descending order by employment rates of individuals with tertiary education. For example, in Ireland only half of the individuals with a qualification below upper secondary are employed compared to 69% of those with at least upper secondary education and 82% of individuals with tertiary education. Non OECD member economies are included for comparison.

Source: OECD (2011a), Education at a Glance 2011: OECD Indicators, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932560930

In particular, investing in equity in education can also reduce the incidence of young people who are defined as NEET (not in employment, education or training). In 2009, across OECD an average of 46% of individuals between 15 and 29 years old were still in education, 39% had left education and found a job, and 15% were neither in education or training nor employed (OECD, 2011b). Many NEET young people lack any qualification, come from immigrant and/or minority backgrounds and/or live in disadvantaged, rural or remote areas (Scarpetta, Sonnet and Manfredi, 2010).

Moreover, many individuals who leave school without minimum skills may remain unskilled for the rest of their life. Individuals with lower levels of education are less likely to participate in continuous education and training and lifelong learning. For example, the average rate of participation in lifelong learning for adults with a level of education below upper secondary is only 18% in the European Union, while the participation rate of those with secondary education is 36% (European Commission, 2006). This may be explained because students who dropped out from school may have a negative perception of school and may lack self-confidence in their ability to learn. Also, they may have fewer opportunities to be trained, either due to financial constraints or lack of willingness to invest by their employers.

Early school leavers have lower income jobs than secondary school graduates and pay fewer taxes since low-skilled labour earns lower wages, which represents lower income tax revenues.[7] Belfield and Levin (2007) estimate for California that each additional high school graduate produces a net fiscal gain for the total public sector during the lifetime of the graduate of about USD 169 000 (EUR 125 000).

Since only half (54%) of secondary school dropouts are in employment (compared to 74% for secondary school graduates) (Figure 1.8), they are also more likely to rely on public assistance – in the case of unemployment, and on public health systems, and this requires countries to make greater public expenditures. As an example, a study in Canada (Canadian Council on Learning, 2009) showed that students who have not completed upper secondary education make up 42.7% of all welfare recipients and that 85% of income assistance, including welfare and other support, is spent on people who have not completed secondary education (high school). The average public cost of providing social assistance (*e.g.*, benefits for food, fuel, shelter, clothing and special needs, as well as work incentive programmes) to high school leavers in Canada is estimated (2008) at over CAD 4 000 (EUR 2 880) per year per high school leaver. Data collected by Rouse (2005) reveals that secondary school dropouts could be costing the United States 1.6% of the country's GDP.

Improving equity in education for individual well-being and social cohesion

From an individual perspective the lack of relevant skills implies lower initial and lifetime earnings, and a higher risk of unemployment incidence and duration. Low educational attainment reduces individuals' opportunities for increasing their knowledge and their cognitive, social and emotional skills (OECD, 2010d).

Improving educational attainment of students can encourage healthier lifestyles and participation in democratic institutions and other civil society initiatives and organisations. Educational attainment has been positively associated with self-reported good health, political interest and interpersonal trust (OECD, 2010e). Crime and other illegal activities may decrease, since better educated people tend to be less involved in criminality (OECD, 2010d). Education, on the other hand, is one of the most powerful ways to improve social outcomes and foster social progress (Woessmann, 2008). Indeed many economic and social problems such as teenage pregnancy and unhealthy habits are linked to low levels of educational attainment and skills (Cunha and Heckman, 2007; Heckman, 2008).

Education plays a role in changing patterns of inequality and is one of the major drivers of intergenerational social and income mobility (Causa and Chapuis, 2009). "Education plays a dual role in intergenerational transmission of advantage. It is both: the main channel for

socio-economic reproduction and the main avenue for socio-economic mobility" (Hout and DiPrete, 2006 in Torche, 2011). As it is the major explanatory factor in the correlation of incomes across generations (OECD, 2010c), it is a powerful tool to use against the problems of poverty and income disparities. Education systems that enable equitable outcomes are key for both economic prosperity and social cohesion (Woessmann, 2008). In equitable systems, a child from a less advantaged background does not get an education inferior to that of a child whose parents have higher incomes (Wilkie, 2007). Since higher educational outcomes are normally associated with higher incomes, income mobility can be higher. Therefore, quality education for all results not only in a school system where no one is left behind, but also in a more equitable society where individuals can improve their socio-economic situation on a basis of merit.

Investing early enhances both equity in education and economic efficiency

Strengthening equity in education is cost-beneficial, and investing in early years yields high returns, since it makes it possible to reap all the benefits and reinforces equity efforts made at subsequent education levels. Early skills and knowledge make it easier to acquire skills and knowledge later on. So strengthening equity includes investing in the very early years and ensuring that students do not drop out but complete upper secondary education.

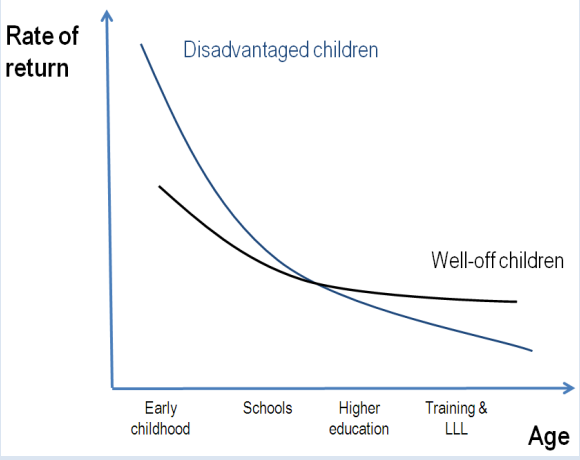
Equity in education is economically efficient

The relationship between goals of efficiency and equity can take many different forms: certain educational policies can make education systems more efficient, without having a negative impact on equity; in the same way, some policies can make systems more equitable without hindering efficiency. Some educational policies can respond to equity and efficiency concerns and develop synergies among them (Woessman, 2008). Investing in early, primary and secondary education for all, and in particular for children from disadvantaged backgrounds, can reinforce equity and be economically efficient (see Box 1.2).

Based on Cunha *et al.* (2006), Woessmann (2008) explains the returns on a Euro spent at different stages of education. He argues that the rate of return on a Euro invested in education declines with the age of a person of any background (Box 1.2). Heckman (2011) calculates that every initial dollar invested in early childhood education generates 7 to 10 cents per year. As Heckman argues, "the logic is quite clear from an economic standpoint. We can invest early to close disparities and prevent achievement gaps, or we can pay to remediate disparities, when they are harder and more expensive to close. Either way we are going to pay. And, we'll have to do both for a while. But, there is an important difference between the two approaches. Investing early allows us to shape the future; investing later chains us to fixing the missed opportunities of the past" (2011).

Returns on educational investments are higher in early, primary and secondary education due to their effects on facilitating later learning (Woessmann, 2008). The substantial long-lasting effects of early years education on economic and social outcomes are particularly high for children from disadvantaged backgrounds, whose home environments may not provide them with the foundation skills necessary to prosper at later educational stages. This is why investing as early as possible in high quality education for all and in supporting students from disadvantaged backgrounds is a cost-beneficial strategy: it pays off.

Box 1.2. Efficiency and equity of investing early in education



This chart shows the different rates of return of a constant investment through different educational levels. Investing in early childhood education and care yields high returns, particularly in the case of disadvantaged children, while investing in training and lifelong learning (LLL) yields positive yet lower returns than in previous educational stages. Disadvantaged students benefit more from early educational investments, while well-off children from later investments.

Sources: Cunha, F., and J. Heckman (2007), "The Evolution of Inequality, Heterogeneity and Uncertainty in Labor Earnings in the U.S. Economy", *NBER Working Paper No. 13526*, National Bureau of Economic Research, Cambridge. www.nber.org/papers/w13526; Cunha, F. and J. Heckman, (2008), *The Technology for the Formation of Skills.* Presentation www.earlychildhoodrc.org/events/presentations/cunha.pdf; Woessmann, L. (2008) "Efficiency and equity of European education and training policies", *Int Tax Public Finance* Vol., 15, No. 1, pp 199-230.

Earlier learning begets later learning

Investing during the early years allows students to acquire skills and knowledge that shape their development and that are very difficult to acquire later on (Heckman, 2011). These include cognitive, non-cognitive and socio-emotional skills, which facilitate the acquisition of skills and knowledge in the subsequent years of education.

Therefore investing in high quality education in pre-primary, primary and secondary education for all is an equitable and productive use of resources, especially in a context of limited resources. This investment is likely to lead to a higher probability of completion of secondary education and, at a lesser extent, tertiary education, and makes completion of these qualifications less dependent on socio-economic background. The investment may also lead to increased intergenerational mobility in education and subsequently in earnings (Restuccia and Urratia, 2004).

Interventions in late adolescence and adulthood are more costly and can be less effective. These strategies must be more targeted to each individual, and their effectiveness is lower because interventions are remedial and do not develop the synergies for later learning

(Lyche, 2010). Returns on investment are particularly low for people who lack basic skills, because of their reduced capacity to develop additional skills (Woessmann, 2008).

Public expenditure in education helps to reduce initial differences in income, mainly because progressive taxation bears more heavily on the better-off and is used to fund education for all. It is especially the case for spending on early childhood education and care and early educational stages (OECD, 2006). Nevertheless, this does not mean that investing in disadvantaged students beyond the early stages of schooling is not worthwhile. Interventions to achieve completion of secondary education are key. In addition, interventions at later ages contribute to improve completion and achievement, and there are many examples of individualised interventions that have positive returns.

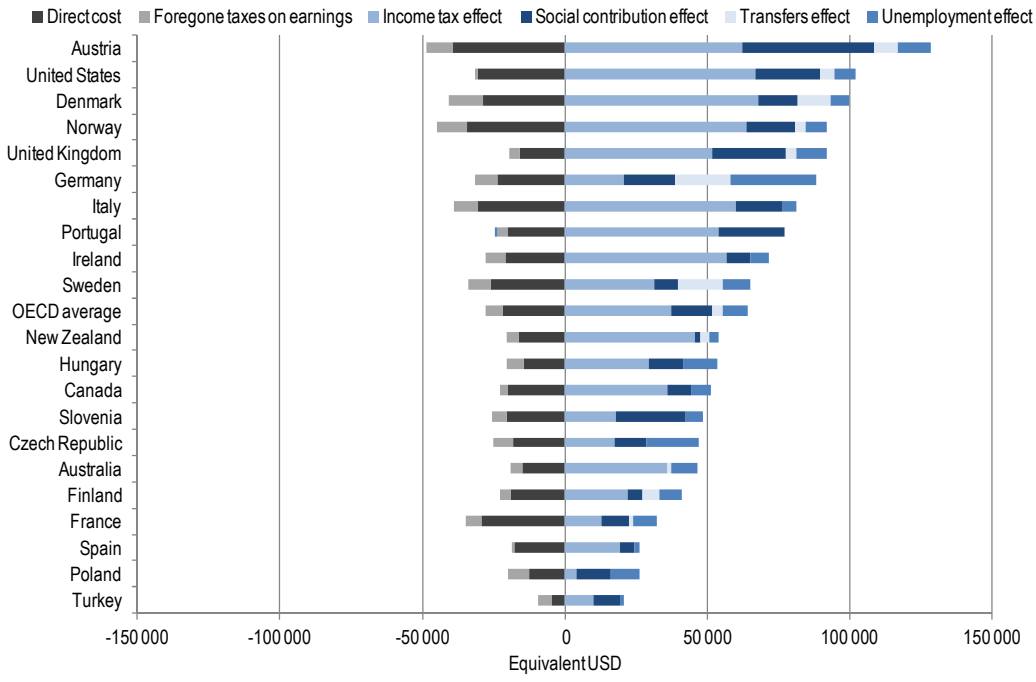
Completing upper secondary education: the benefits outweigh the costs

From a public finance perspective, the benefits of investing in upper secondary education completion outweigh the costs in all OECD countries. In OECD countries, the public internal rate of return of a man that has accomplished this level of education is very high, accounting to 7.7%. In practical terms this level of education generates in average a public net return of USD 36 000 per individual in OECD countries (Figure 1.9). In Austria, the United Kingdom and the United States, it generates a net return of more than USD 70 000. The public returns to a woman attaining this level of education are USD 10 000 less than for a man, on average across OECD countries. Nonetheless, the benefits are more than twice as large, on average, as the overall public costs for upper secondary or post-secondary non-tertiary education, for both men and women (OECD, 2011a).

From an individual perspective, on average across OECD countries a man who invests in upper secondary education or post-secondary non-tertiary education can expect a personal net gain of more than USD 78 000 during his working life over a man who has not attained that level of education. A woman can expect a net gain of USD 63 000 over her working life (OECD, 2011a).

Figure 1.9. The public benefits of investing in upper secondary outweigh the costs

Public cost and benefit for a man obtaining upper secondary or post-secondary non-tertiary education



How to read this chart: This chart shows an estimate of public benefits (right side) and costs (left side) of completing upper secondary education. Countries are ranked in descending order by the size of benefits. In the United Kingdom, the costs, which are the sum of foregone taxes on earnings and direct costs, are small, while the benefits are large and mainly driven by the income tax effect.

Data refer to 2007 or latest available year.

Source: OECD (2011a), *Education at a Glance 2011: OECD Indicators*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932560949

Fair and inclusive education as a lever out of the crisis

OECD countries recently experienced a major financial crisis that led to the deepest recession since the 1929 Great Depression (OECD, 2010c). In 2009 alone, OECD GDP fell by four percentage points, industrial production and global trade were drastically affected and unemployment rose in many countries. Inequalities have tended to exacerbate, as unemployment and reduction in welfare expenditures are resulting in higher poverty. Governments have responded with a wide range of fiscal, financial and structural policy measures to weather the crisis. There has been an emphasis on policies aiming to enhance productivity levels, including education (OECD, 2011c).

Education has been relatively shielded

The recent recession has pushed education to the forefront. It has had a relatively limited impact on investment in education systems in most OECD countries, and in fact has enhanced the role of education as a key lever for long term economic recovery. A study of how OECD countries are reaching fiscal consolidation shows that until recently, education has been relatively shielded from budgetary cuts in relation to other areas of public expenditure such as welfare, health, infrastructure and pension expenditures (OECD, 2011d).

Only 6 out of 30 countries in the study took any measures towards large expenditure reductions in education.

Another OECD survey focusing on the impact of the economic crisis in education systems indicates that in most countries pre-primary, primary and secondary budgets have been sheltered. Some countries increased public investment in upper secondary education and developed stimulus measures strengthening these education levels (See Table 1.1) to alleviate unemployment and meet the increasing education demand of a changed labour market.

Table 1.1. Education stimulus measures for recovery in OECD countries between 2007-2010

Stimulus measures		No stimulus measures
Education and/or skills enhancement as an explicit priority	**No explicit focus on education and/or skills enhancement**	
Australia, Canada (Federal Government, Saskatchewan), Chile, Denmark, Finland, France, Greece, Iceland, Ireland, Korea, Netherlands, New Zealand, Norway, Slovenia, Sweden, Turkey	Austria, Belgium (Flanders), Canada (Alberta, New Brunswick, Quebec), Japan, Mexico, Poland, Portugal, Spain	Czech Republic, Hungary

Note: Hungary noted that although budgetary pressures have made it difficult to develop stimulus measures, European Union financed development programmes have been serving a similar purpose. Similarly, the Czech Republic National Anti-Crisis Plan includes initiatives allowing use of resources from the European Social Fund for training of private sector employees; as well as the continuation of an educational reform aiming at improving curricula and learning methods and the development of a national qualification framework.

Source: Damme, D.V. and K. Karkkainen (2011), "OECD Educationtoday Crisis Survey 2010: The Impact of the Economic Recession and Fiscal Crisis on Education in OECD Countries", OECD Education Working Papers, No. 56, OECD, Paris. www.oecd-ilibrary.org/education/oecd-educationtoday-crisis-survey-2010_5kgj1r9zk09x-en

Even in countries such as Greece, Iceland, Ireland or Portugal, where fiscal pressures have forced significant budget cuts, education has been one of the less affected sectors in relative terms. For example, in Ireland the current public expenditure allocation for education expenditure in 2010 was 5% less than the allocation for 2009, but the overall education funding for primary and secondary education increased by 10% and 7% between 2007 and 2010 and decreased by 3% at tertiary level (Damme and Karkkainen, 2011).

Some countries have continued or accelerated their education reforms. For example, reforms making pre-primary education compulsory continued in Austria. Similarly, Poland sustained reforms aiming at improving the curricula and increasing participation in pre-primary and primary education. Spain continued reforms aimed at enlarging access to early childhood education and care and at making the last year of compulsory education more attractive to students. In Greece, reforms in most sectors of education were accelerated. Also, 10 countries reported expansion or acceleration of vocational education and training reforms since 2007 (Damme and Karkkainen, 2011).

However, education has not been completely protected

Nevertheless, there are reports of cut-backs due to the crisis. Alberta (Canada), Denmark, Hungary and Iceland reported crisis-related decreases in central budgets *at least once* between 2007 and 2010 for primary, and secondary education as well as for students above 25 years of age. Central budgets of vocational education and training programmes have also been affected in several countries, including Hungary, Iceland, Ireland, Slovenia and the Flemish Community of Belgium. Hungary and Alberta (Canada) also report decreases in central budgets for pre-primary education (Damme and Karkkainen, 2011).

Some cutbacks affecting education are related to general government employee compensation, which in some countries includes teacher salaries. Around 15 countries underwent operational savings and announced targets for reducing public wages and staffing, according to the OECD survey on fiscal consolidation (OECD, 2011d). Examples of approaches to reduce staff costs are a two-year wage freeze in the United Kingdom and approximately a 14% wage reduction in Ireland. The total quantified wage reduction is between 0.6% of GDP and more than 0.8% of GDP in Hungary, where teachers' salaries were frozen and a salary bonus was withdrawn; (OECD, 2011d; Damme and Karkkainen, 2011). In other countries, budget consolidation has taken the shape of reductions in teaching and support staff, especially of temporary staff.

Countries that have increased public investment in education in recent years may face difficulties in sustaining them in the near future. For instance, widespread decreases in education budgets were expected in 2011 in Greece. Decreases and limited reforms were also expected in Australia, Finland, Hungary, Korea, New Zealand, Iceland and Ireland (Damme and Karkkainen, 2011). Moreover, where there have been increases these may not be enough to maintain the level of expenditure per student in countries facing increasing educational demand. For instance, the Netherlands indicates that even though the tertiary education budget increased between 2007 and 2010, the budget per student in fact decreased (Damme and Karkkainen, 2011).

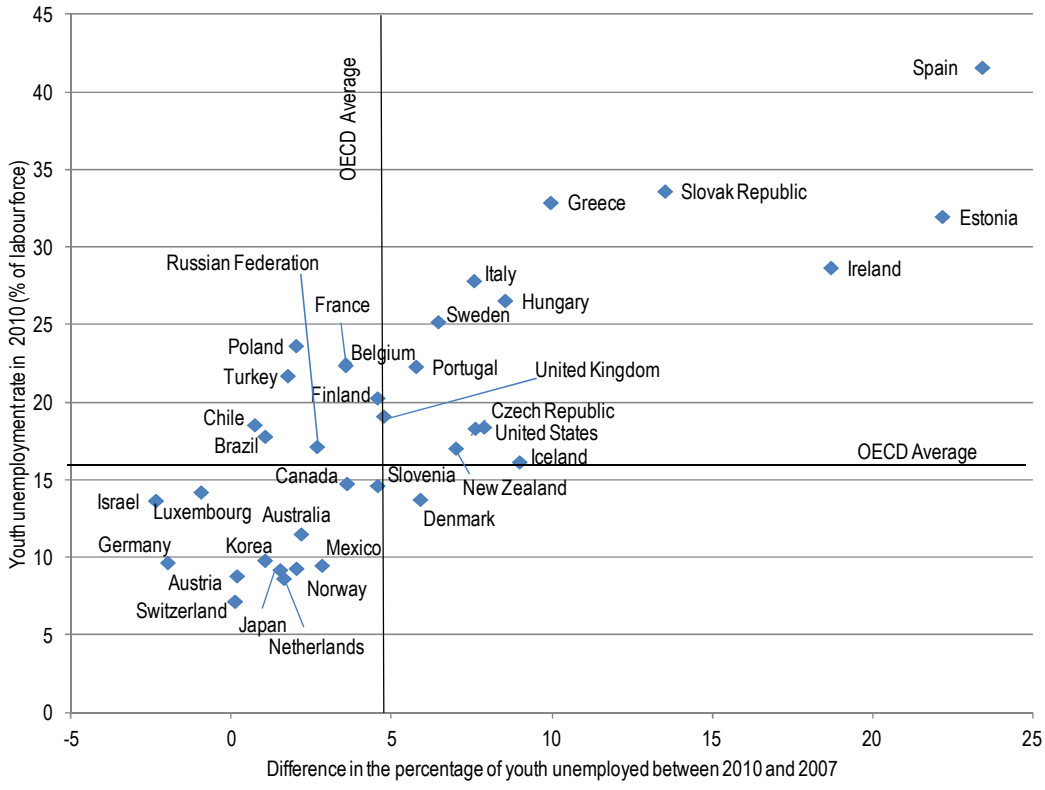
The crisis is likely to have affected disadvantaged children more severely

The recession and the cutbacks on education have not had the same impact on all schools and students: evidence shows students from disadvantaged families can suffer the most. According to selected evidence from previous crises, students from disadvantaged backgrounds seem to be at higher risk of suffering the impact of economic crises (Torche, 2010; Richardson, 2010). First, these students often attend schools with fewer resources. In some countries, crisis-led adjustments have included reducing the number of additional or support teachers in the classrooms, or extracurricular programmes that support low performing or migrant students. While families from higher socio-economic backgrounds may have more resources at home to compensate for less support at school, for example with private tutoring, students from the most disadvantaged backgrounds may not be able to overcome these additional hurdles.

Second, students from disadvantaged backgrounds already suffer from impoverished family contexts and poorer out-of-school learning environments and the recession is likely to have worsened their situation. Children are not insulated from the deprivation and suffering of their families, which have not only to weather unstable employment markets but also to face cuts in social services (Richardson, 2010). Lack of quality education and support may generate more severe negative effects than in times of economic growth and have a long term impact on them.

Third, education systems, especially in time of crisis, may face increased difficulties in ensuring that students finish secondary education (Brunello, 2009), increasing disadvantaged students' vulnerability. As an example, in vocational education and training, countries such as Ireland and Austria have reported that the current recession has reduced the capacity of companies to support their training investments, causing a reduction of traineeships available for students (Damme and Karkkainen, 2011). Since in many countries disadvantaged students are more likely to follow this education pathway, and since those students are less likely to find a traineeship, there are strong chances this can result in higher dropout rates (Lyche, 2010). In some countries, funding for higher education has substantially decreased leading to higher fees and fewer opportunities for student aid or services. Therefore there is a risk of increasing the gap between more advantaged and less advantaged students.

Figure 1.10. Youth unemployment has increased



How to read the chart: This chart shows the unemployment rate of 15-24 year-olds relative to the workforce in 2010, and the difference between 2007 and 2010. For example, in Spain the unemployment rate reached 42% in 2010, an increase of 23 percentage points since 2007.
Source: OECD Employment database.

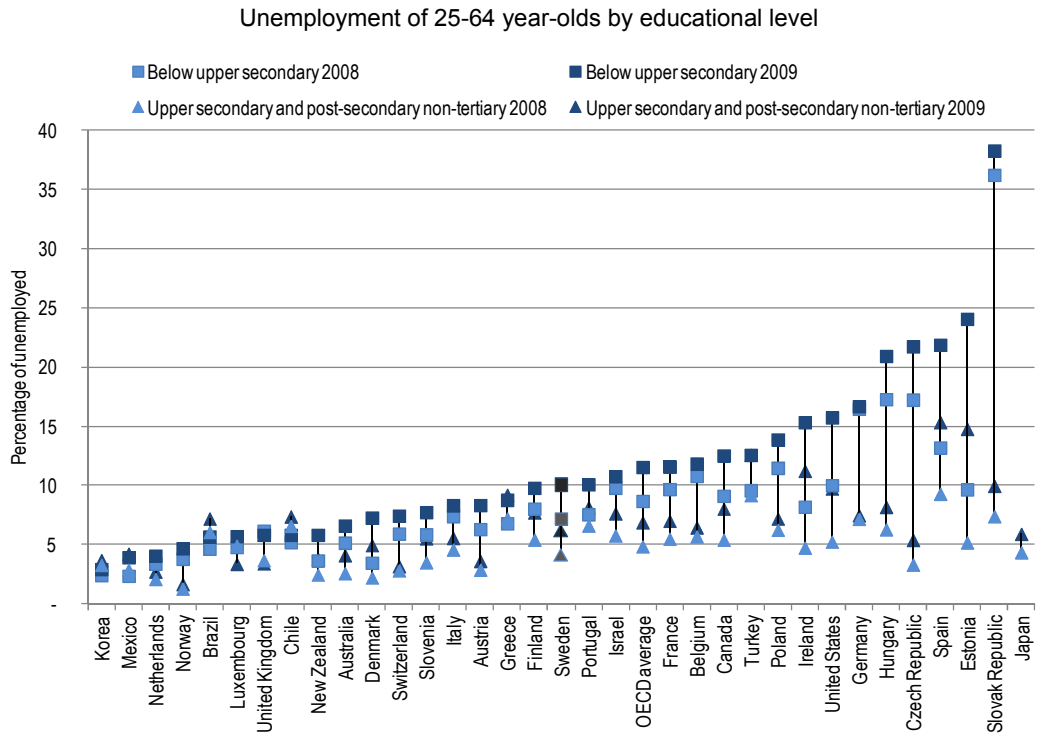
StatLink http://dx.doi.org/10.1787/888932560968

Less educated young people have also been hit

As in previous crises, young people have been particularly affected, especially the least educated. Youth employment fell by around 5% between 2007 and 2010 and the unemployment rate of 15-24 year-olds in OECD countries stood at 17% in 2010 (Figure 1.10). There are nearly 15 million young unemployed in the OECD area, about four million more than at the end of 2007. In countries like France and Italy, around one active youth in four is unemployed, while in Spain more than 40% are jobless (Scarpetta, Sonnet and Manfredi, 2010).

Individuals with lower levels of education have higher unemployment rates (Figure 1.11). Average unemployment rates in OECD countries increased 2.8 percentage points between 2008 and 2009 for individuals with an education below upper secondary, 2 points for those with an upper secondary qualification and only 1.1 percentage points for those with a tertiary qualification (OECD, 2011a).

Figure 1.11. Individuals with upper secondary have weathered the crisis better



How to read this chart: This chart shows the impact of the crisis on unemployment rates by educational level. Countries are ranked in ascending order of the unemployment rate in 2009 for individuals with upper secondary and post-secondary non-tertiary education. In Poland, unemployment of upper secondary graduates increased 1 % point, while it increased more than 2.5 % points for those with an education level below upper secondary education. Non OECD member economies are included for comparison.

Source: OECD (2011a), *Education at a Glance 2011: OECD Indicators*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932560987

Furthermore, a number of studies predict only slow improvements of the labour market, limited job creation and a prolonged period of joblessness for young people in the years to come (OECD, 2011c; Scarpetta, Sonnet and Manfredi, 2010). This will have lasting consequences for those are struggling to find employment ("scarring" effects, Box 1.3).

Box 1.3. The potentially scarring long term effects of unemployment on young people

Education is key to secure employment. Different studies have pointed to the negative impact of unemployment on young people and the "scarring" effects that it produces. Scarring means that the experience of unemployment will increase future unemployment risks and/or reduce future earnings, mainly through effects associated with human capital (*i.e.* deterioration of skills and foregone work experience) or signalling effects (*i.e.* periods of unemployment convey a signal of low productivity to potential employers). The longer the unemployment spell lasts, the more individual productivity will be affected; and the lower the level of initial qualification, the longer the scarring effects are likely to last. About 30-40% of school leavers in the OECD are estimated as being at risk of suffering the scarring effects of the crises, either because they have multiple disadvantages (the so-called "left behind youth") or because they face barriers to find stable employment (the so-called "poorly integrated new entrants").

Young people at the bottom of the qualifications ladder encounter substantial difficulties in entering the labour market and are the most vulnerable to economic swings. They face a higher risk of unemployment and tend to end up in low-skilled or temporary jobs, with a future of state-funded training programmes interspersed with insecure low paid employment and lengthy periods of unemployment. They are often channelled into training schemes that may not match the needs of the labour market and neglect individual aspirations and strengths. This results in demotivation and disengagement.

Oreopoulus et al. (2008) and Nordström Skans (2004) also show that unemployment during youth may affect later labour market performance in a very negative way. If skills are not put to use they will degenerate fast once one has left school, while the experience of being unemployed may reduce the incentive to search for work, all leading to reduced employment prospects. Moreover, if seniority-based rules apply, employers will cut their workforce primarily by dismissing those who have been employed for a shorter period.

Sources: European Commission (2006), *Accompanying document to the Communication from the Commission to the Council and to the European Parliament - Efficiency and equity in European education and training systems.* Staff Working Document. http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2006:1096:FIN:EN:HTML; OECD (2010f), *Off to a good start? Jobs for Youth,* OECD, Paris; Oreopoulus, P., M. Page and A. Stevens (2008), "The intergenerational effects of worker displacement", *Journal of Labor Economics*, 2008, vol. 26, No. 3, pp. 455-483; Nordström Skans, O.(2004), "Scarring effects of the first labour market experience: A sibling based analysis", Institute for Labour Market Policy Evaluation, Working Paper Series, No. 14; Scarpetta, S., A. Sonnet and T. Manfredi (2010), "Rising Youth Unemployment During The Crisis: How to Prevent Negative Long-term Consequences on a Generation?",OECD Social, Employment and Migration Working Papers, No. 106, OECD, Paris. http://dx.doi.org/10.1787/5kmh79zb2mmv-en.

The worsening of labour market conditions and high general unemployment make the transition from education to work substantially more difficult, as those with more work experience are favoured over new entrants into the labour force. In many OECD countries the lack of an upper secondary qualification is a serious impediment to finding a job. In Belgium, Canada, the Czech Republic, Estonia, France, Greece, Hungary, Ireland, the Slovak Republic, Spain, Sweden, the United Kingdom and the United States, at least 15% of 20-24 year-olds

who are not in school and who have not attained an upper secondary education are unemployed (OECD, 2011a).

As a result of these negative labour market signals, young people may view this as an opportunity to pursue further studies or return to education. Evidence from previous economic crises shows that many young people facing a high risk of unemployment return to full-time education (Bell and Blanchflower, 2009 in Scarpetta, Sonnet and Manfredi, 2010; World Bank, 2009). In addition, across OECD countries, the expected number of years youngsters between 15 and 29 years old spend in education has increased slightly in 2009 (OECD, 2011b). Australia, Canada (Alberta), Hungary, Ireland, New Zealand and Spain as well as most of the Nordic countries report crisis-related increases in enrolments in upper secondary education and vocational education and training, and/or positive influence of the crisis on tertiary and adult education demand between 2007 and 2010 (Damme and Karkkainen, 2011). In the context of the current crisis, full-time enrolment at Canadian universities rose by 4% in 2008-09 compared with 2007-08, while 7% more undergraduates signed on for the 2009 academic year (OECD, 2010f). A comparison of enrolment rates between 1995 and 2009 shows a larger increase between 2008 and 2009 than in the past 3 years, especially for 20 to 29 year olds (OECD, 2011a).

However, many young people may be discouraged by the lack of job expectations and their perception of poor returns from education. Indeed, not all countries with high youth unemployment rates have registered proportional increases in education enrolment (OECD, 2011a). In some countries there has been no change in enrolments in recent years, or very small increases. For instance available data on enrolment rates in vocational programmes (ISCED 3C) for the 20-24 age group show a rather stable trend in many OECD countries such as France, Mexico or the Netherlands. A study analysing the impact of the recent economic downturn in young adults in the United Kingdom concluded that around 16% of a sample of 18-19 year-olds (in 2009) were not in education, employment or training (NEET) and that most of them come mainly from the most disadvantaged families. Those who went on to university (28% of the sample) come from more privileged backgrounds (Duckworth, Schoon and Vignoles, 2011).

Reinforcing equity and efficiency as a way out of the crisis

Despite what some might believe, in the current crisis governments need to ensure that all students receive high quality education and that students do not drop out of the system before obtaining the skills they need to successfully integrate into the labour market and society. In these circumstances, public investment in education can be a sensible way to counterbalance unemployment and invest in future economic growth by building needed skills (OECD, 2011a).

To ensure efficient investments in education, the priority should be for early investment, reinforcing support for schools that need it and ensuring students' completion of upper secondary. Chapter 2 and 3 provide system level and school level strategies to enhance equity and raise performance of the more disadvantaged, which can result in higher income and cost savings over the long-term. The costs of some education reforms are a concern at a time when the vast majority of OECD countries are adopting fiscal consolidation. Yet, reforms reinforcing equity can induce considerable cost efficiencies within many countries' education systems while maintaining, or even raising, output levels.

Rationalise spending to embrace both equity and efficiency

Governments are confronted with the need to respond simultaneously to both the efficiency and equity agendas; and ministries are required to reconsider their expenditures and the way education services are delivered. The current state of fiscal restraint in the public sector means governments are increasingly unable to significantly increase spending in education. Resource considerations are now more than ever fundamental in the design and implementation of education policies and practices.

The average real expenditure per student increased by more than 20% between 2000 and 2007 across OECD countries (OECD, 2010e). OECD countries vary greatly in the amounts they spend per student: total expenditure by educational institutions per student from age 6 to 15 exceeds USD 100 000 (PPP-corrected dollars) in Luxembourg, the United States, Switzerland and Norway. In contrast, in Turkey, Mexico, Chile, the Slovak Republic and Poland, cumulative expenditure per student over this period is less than USD 40 000.

However, increasing resources *alone* does not necessarily result in school or student improvement (Grubb, 2009; Faubert, 2012; Woessmann, 2008; Faubert and Blacklock, 2012). Research usually shows a weak relationship between net levels of spending in education and student performance.[8] For example, Estonia and Poland, which spend around USD 40 000 per student, perform at the same PISA level as Norway and the United States, which spend over USD 100 000 per student. Similarly, New Zealand, one of the highest-performing countries in reading, spends well below the average per student (OECD, 2010b). This means that performance on international comparisons cannot simply be tied to financial resources and that many other qualitative elements- in particular cultural and contextual ones- have to be taken into account. Researchers in education finance have identified several areas in which education funds are misspent – inputs like unnecessary or inadequate textbooks, supplies or computers, poorly developed professional learning programmes, and attempted reforms backed by insufficient resources (Faubert, 2012).

What does matter is not solely the level of resources, but how countries invest these and how well they succeed in directing these resources to where they can have the most impact. For instance school systems often make trade-offs between smaller classes and higher salaries for teachers. The findings from PISA suggest that systems prioritising higher teacher salaries over smaller classes tend to perform better (OECD, 2010g).

Effective school systems require the right combination of high quality and well-trained personnel, adequate educational resources and facilities, and motivated students ready to learn – and resources must be distributed in a way that allows this (OECD, 2011e). Within school systems, PISA identifies that socio-economically disadvantaged students tend to attend schools with fewer resources, in terms of class size, instruction time, participation in after-school lessons, availability of extra-curricular activities, and the school principal's perception of teacher shortages and lack of material resources (OECD, 2010g). This suggests the need to consider equity in the distribution of resources to schools.

Adequately resourcing policies and programmes to reduce school failure requires significant amounts of both financial resources and human capital. The importance of costing the resource requirements of initiatives and assessing costs against anticipated outcomes and impact is critical, particularly in the present resource-constrained environment. However, transparent, detailed and accurate estimates of costs are an all-too-rare phenomenon and

resources are not always well spent. There is a general lack of high quality cost/benefit analyses of different educational policies and programmes at school and educational authority levels, meaning that schools and governments often make decisions with minimal attention to the efficiency or effectiveness of their likely education outcomes (Hattie, 2009; Woessmann, 2008 in Faubert, 2012).

Considerations for systemic improvement

Improving system-wide educational outcomes is a complex task, requiring an approach that addresses many, if not all, major components of the system. It needs to include both policy and process: there is no point adopting policies that cannot realistically be put into place. Designing the right policies to improve equity and reduce school failure is essential; but so is having well-developed means for turning those policies into action across large numbers of schools. For this, resources and levels of governance in pursuit of these goals need to be aligned (OECD, 2010h).

While a comprehensive strategy is necessary, it is equally true that there is no single template that all high achieving countries follow. Policy design must take into account the context, resources and options for implementation, particularly during crisis times. In addition, with the move to greater school level autonomy and decentralisation in many systems, policy responsibilities fall under different central, regional or local and sometimes schools. Indeed education governance in OECD countries is spread among an increasing range of stakeholders, so coordination, cooperation and accountability are more important than ever before. This report proposes a set of policy levers that need to be adopted at the broader system level, and a set of policy levers to support disadvantaged schools, which can be used for policies at a more systemic level but can also be implemented at the regional or local level.

Conclusion: a strategy to improve equity and reduce school failure

Reducing school failure pays off for both society and individuals. It can also contribute to economic growth and social development. Indeed the highest performing education systems across OECD countries are those that combine quality with equity. Equity in education means that personal or social circumstances such as gender, ethnic origin or family background, are not obstacles to achieving educational potential (fairness) and that that all individuals reach at least a basic minimum level of skills (inclusion). In these education systems, the vast majority of students have the opportunity to attain high level skills, regardless of their own personal and socio-economic circumstances.

Across OECD countries, almost one of every five students does not reach a basic minimum level of skills to function in today's societies (indeed, many are effectively excluded). Students from low socio-economic background are twice as likely to be low performers, implying that personal or social circumstances are obstacles to achieving their educational potential (indicating lack of fairness). Lack of inclusion and fairness fuels school failure, of which dropout is the most visible manifestation. Across OECD countries, one of every five young adults on average drops out before finalising upper secondary education.

The economic and social costs of school failure and dropout are high, whereas successful secondary education completion gives individuals better employment and healthier lifestyle prospects resulting in greater contributions to public investment through higher taxes. More educated people contribute to more democratic societies and sustainable

economies, and are less dependent on public aid and less vulnerable to economic downturns which in turn contribute to more equitable societies (OECD, 2011f). Societies with skilled individuals are best prepared to respond to the current and future potential crises. Therefore, investing in early, primary and secondary education for all, and in particular for children from disadvantaged backgrounds, is both fair and economically efficient.

In the path to economic recovery, education has become a central element of OECD countries' growth strategies. To be effective in the long run, improvements in education need to enable all students to have access to quality education early, to stay in the system until at least the end of upper secondary education, and to obtain the skills and knowledge they will need for effective social and labour market integration.

Invest early and through upper secondary education

To this end, one of the most efficient educational strategies for governments is to invest early and all the way up to upper secondary. Policies that look to ensure that all students attain at least a basic level of skills by the end of secondary education are key to individual, economic and social progress; their benefits outweigh their costs. But education policies need to be aligned with other government policies, such as housing or welfare, to ensure student success. Education systems can prevent school failure and reduce dropout using two parallel approaches:

Avoid system level factors conducive to school failure

The way education systems are designed has an impact on student performance. More specifically, some systemic practices, such as early tracking, repetition, certain school choice schemes or low quality vocational education and training tend to amplify social and economic disadvantages and are conducive to school failure. Chapter 2 reviews system level practices that hinder equity and provides five recommendations to prevent failure and promote the completion of upper secondary education. Improving system level policies will reinforce equity across the system – and in particular benefit disadvantaged students, without hindering other students' progress.

Help disadvantaged schools improve

Schools with higher proportions of disadvantaged students are at greater risk of problems that can result in under performance, affecting education systems as a whole. Low performing disadvantaged schools often lack the internal capacity or support to improve, as school leaders and teachers and the environments of schools, classrooms and neighbourhoods frequently fail to offer a quality learning experience for the most disadvantaged. Chapter 3 proposes five policy recommendations that have shown to be effective in supporting the improvement of low performing disadvantaged schools.

Addressing these challenges is a difficult endeavour in any country. Improvements across an entire education system can come only with strong and consistent political support and leadership sustained over time. It also requires policy design and implementation that is aligned to governance structures. However, investing in equity in education has high returns: in the current context, it represents one of the best strategies governments and societies can adopt.

NOTES

[1] An education system is defined as high-performing in the PISA analysis if: almost all of their students are in upper secondary education at the appropriate age; average performance is high and the top quarter of performers place among the countries whose top quarter are among the best performers in the world; student performance is only weakly related to their socio-economic background; and spending per pupil is not at the top of the league tables (OECD, 2011e).

[2] Translating these concepts from English into other language can be challenging. For instance in Czech, the difference between "equity" and "fairness" is difficult to make.

[3] Students *below* proficiency Level 2 begin to demonstrate competencies that will enable them to participate more effectively and productively in life situations than those with lower achievement. Students *below* Level 1 can be regarded as having an educational level that puts them at a serious disadvantage for full participation in society and the economy.

[4] This report uses "below Level 2" as the key indicator to measure inclusion. But it is important to note that "level 2" is used as an indicator of vulnerability in other OECD publications (OECD, 2011a).

[5] While there are different ways of measuring this phenomenon across OECD countries, and different standards of completing upper secondary, for the purposes of this publication 'dropout' and 'early school leaving' are used interchangeably in reference to non completion of upper secondary education and training (ISCED 3).

[6] Looking more closely at specific migrant groups is revealing of their heterogeneity: for example in the Toronto District School in Ontario (Canada) 45% of Caribbean students do not graduate from secondary school (Sweet *et al.*, 2010), whereas more than 70% of East Asian students progress to university.

[7] Belfield and Levin (2007) estimate the costs associated with dropouts in California. They examine general tax revenues from income and sales taxes, and the costs of education, welfare and health care. The conclude that each additional high school graduate produces a net fiscal gain for the total public sector during the lifetime of the graduate of about USD 169 000. Of this, USD 115 000 is net gain to the federal government and the remainder, about USD 54 000 is for state and local governments.

[8] The lack of correlation between the level of resources and performance among school systems does not mean that resource levels do not affect performance. A school system that lacks teachers, infrastructure and textbooks will almost certainly perform at lower levels. The lack of a relationship between many of the resource aspects and both equity and performance may result from a lack of sufficient variation among OECD countries (OECD, 2011e).

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CHAPTER 2.
TACKLING SYSTEM LEVEL POLICIES THAT HINDER EQUITY IN EDUCATION

This chapter looks at how to eliminate system level obstacles to equity. Education systems and the pathways through them need to be designed in a way that both enhances equity and raises students' success, yet a wide set of policies which hinder equity are still common in many OECD countries. This chapter focuses on how to redress the negative impact of five system level policies that hinder equity by proposing alternative policy approaches to improve equity and performance.

To limit grade repetition, which hinders equity and has high costs for both school systems and individual students, it suggests the use of preventive measures, automatic promotion with support, or incentives to reverse its use. It proposes to delay early tracking and selection, as it has negative effects on both disadvantaged and low performing students. It presents options to counterbalance the negative impact of school choice on equity, such as controlled choice schemes and incentives to make disadvantaged students attractive to schools. It then suggests ways to make school funding mechanisms fairer by taking into account that instruction costs vary for different schools and children. The chapter ends by proposing options to reduce dropout by designing equivalent pathways in upper secondary education, raising the quality of vocational education and training, providing student guidance and implementing support strategies for those at risk of not completing upper secondary education.

Designing fair and inclusive education systems is a stepping stone to providing high quality education for every child. Inappropriate design and practices of education systems allow educational inequities and school failure (Hanushek and Wöessmann, 2010). Some system level policies, such as grade repetition or early tracking, tend to amplify socio-economic disparities and are conducive to disengagement and dropout, whereas other policies seem to mitigate them (Causa and Chapuis, 2009). It is not always clear how to best support schools, in particular low performing disadvantaged schools. This chapter reviews system level policies that can hinder equity and suggests alternative options, while Chapter 3 focuses on schools.

Designing education systems that combine high quality and equity is possible, as Chapter 1 showed. The highest performing OECD education systems develop comprehensive education systems that provide high quality opportunities to the vast majority of students, compensating for disadvantages caused by students' family backgrounds and personal circumstances (OECD, 2010a). Top performers set high expectations for every child and invest enough resources to enable them to overcome their disadvantages. In recent years a number of countries have reformed their education systems successfully, raising both student performance and equity. For example, recent reforms in Germany and Poland have improved both academic achievement and narrowed the gap between students (OECD, 2011a). In these and in a number of other OECD countries, there continues to be significant room for enhancing equity and raising students' success by structuring education systems and its different pathways in a way that does not hinder equity.

This chapter presents system level policies and practices that research has identified as obstacles to equity, to which countries must continue paying attention. It reviews the evidence, provides a comparative perspective, and gives clear policy recommendations for improvement. Acknowledging the different contexts and the difficulties of implementation, each policy recommendation contains several alternative options, illustrated with selected country examples. The equity enhancing policies proposed go hand in hand with quality, and in some cases with efficiency, as they can also represent cost savings. These system wide reforms can improve education systems as a whole and support the learning of all students.

Recommendation 1. Eliminate grade repetition

Key findings

Making a student repeat an educational year is costly and often ineffective in raising educational outcomes. Yet some countries use grade repetition extensively. There are more efficient policy options to grade repetition that contribute to improved results:

- The most effective strategy to address learning gaps and avoid repetition is to tackle them during the school year – responding appropriately to continuous and comprehensive assessment and providing early, regular and timely support, strengthening students' knowledge and metacognitive skills.
- When students have not achieved the minimum to successfully move forward, a more effective approach is automatic promotion, but with support. This entails supporting students, reinforcing teachers' ability to teach classes with more diverse attainment levels, and extending and intensifying learning opportunities in the specific subjects in which students did not reach a satisfactory level.
- Often, it is a matter of reversing the culture of repetition across school systems. This requires raising awareness among school actors about the costs and negative impact on students, setting objectives and aligning incentives and accountability for schools to decrease grade retention rates.

Challenge: grade repetition hinders equity in many OECD countries

Grade repetition occurs when students, after a formal or informal assessment, are held back in the same grade for an additional year, rather than being promoted to the next stage along with their peers. Usually the practice of allowing a student who has fallen behind to repeat a year is conceived as an extra opportunity to fully acquire the required knowledge in order to move forward successfully. However research has consistently shown that grade repetition does not provide greater benefits than promotion to the following grade (Brophy, 2006).

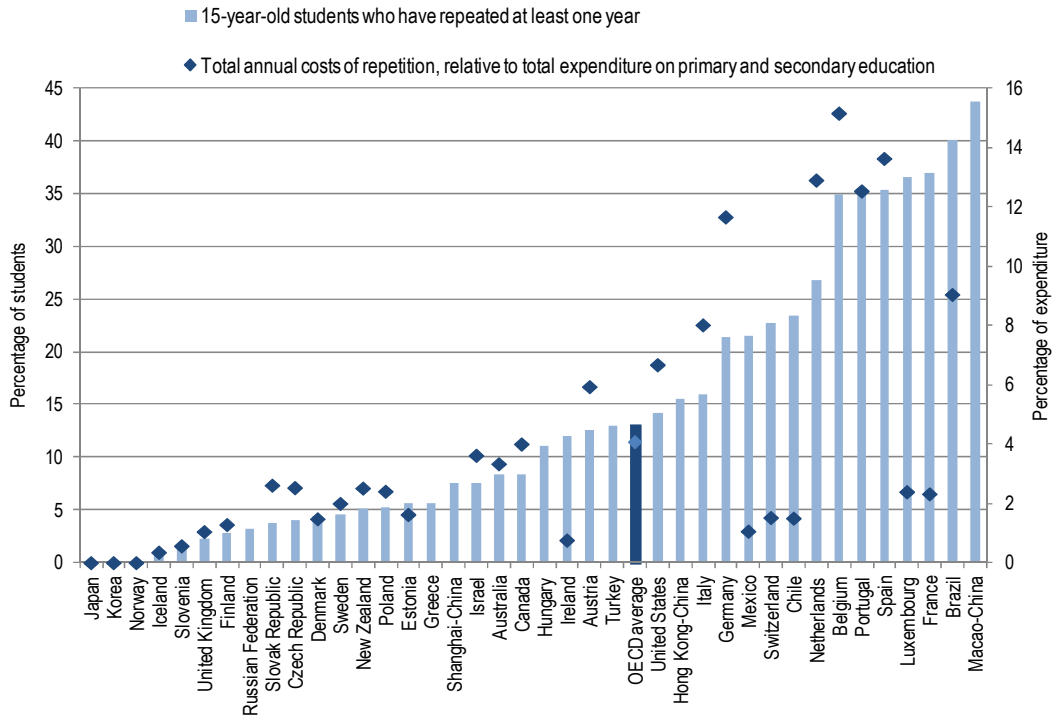
Grade repetition is practised in many OECD countries: 13% of 15-year-olds are reported to have repeated at least one year either in primary or secondary school (Figure 2.1). This proportion is particularly high in France, Luxembourg, Spain, Portugal and Belgium, where it affects over 30% of students. In these countries, repetition has been one of the main tools to respond to individual weak performance and preserve an even level of attainment within each classroom.

School systems that extensively use repetition are associated with low levels of educational performance (OECD, 2010b), while strategies to support each individual prevail in countries with higher performance levels. Teachers widely support the practice as they observe some benefits of repetition, which are related to immediate gains based on going over the same curriculum a second time (Jimerson, Anderson and Whipple, 2002). However teachers may not always observe the long-term negative effects on students and the additional burden that repetition places on education budgets. Moving weaker students to the following year would require teachers to teach in more challenging environments with groups

A corrigendum has been issued for this page. See: http://www.oecd.org/dataoecd/48/16/49631046.pdf

containing widely varying levels of student attainment, for which some teachers may not be prepared. In addition, schools may lack the resources to support these students and teachers.

Figure 2.1. Grade repetition affects many students and entails high costs in some countries



How to read this chart: This chart shows the extent to which repetition is used in OECD countries (left axis) and the direct costs that it represents as a percentage of primary and secondary education expenditures (right axis). For example in Portugal, 35% of 15 year-old students have repeated at least one year and the direct costs to individuals and the education system are equivalent to more than 12% of the schooling budget. Non OECD member economies are included for comparison.

1. In Chile, France, Ireland, Luxembourg, Mexico, Switzerland and Turkey, the total costs are underestimated as the annual labour costs are not available and the opportunity costs cannot be computed.
2. Cost estimations refer to 2007 or latest available year and represent the total costs of grade repetition for one year age cohort. See OECD (2011b) for information on the methodology used.
3. Cost estimations for Turkey, Hungary, and Greece are not available.

Sources: OECD (2010b), *PISA 2009 Results: What Makes a School Successful?: Resources, Policies and Practices (Volume IV)*, PISA, OECD, Paris, OECD (2011b), *When students repeat grades or are transferred out of school: What does it mean for education systems?*, OECD, PISA in focus, No. 6.

StatLink http://dx.doi.org/10.1787/888932561006

Evidence: high and lasting costs, while benefits are slight and short-lived

The financial costs of grade repetition are large for both individuals and society. Its direct costs for school systems are very high, as these include providing an additional year of education and delaying entry to the labour market by a year. In Belgium, the Netherlands, Portugal and Spain the direct costs of grade repetition account for more than 8% of the annual expenditure on primary and secondary education (OECD, 2011b). Moreover, since students who repeat a year are more likely to engage in high-risk behaviour and/or dropout, repetition increases expenditure on other social services (Jimerson, Pletcher and Graydon, 2006).

In addition to the financial costs, grade retention widens inequities because the proportion of students from disadvantaged backgrounds among those falling behind is higher. Students with low socio-economic backgrounds, poorly educated parents or immigrant backgrounds, and boys, are significantly more likely to repeat than others (OECD, 2011b). Grade repetition implies further widening the achievement gap between those who are held behind and their peers.

The academic benefits of grade retention are slight and short-lived. Although some studies report that there may be slight gains in the retained year (Allen et al, 2009), this is partially explained because students are working on the same curriculum again; these gains tend to fade away in later years. On the other hand, grade repetition has a long-term social and academic negative impact. It increases the likelihood of earning no qualification or only a lower secondary one (Jacob and Lefgren, 2009).[1]

Moreover, students usually perceive repetition not as an enabling opportunity but as a personal punishment and social stigma, and may be further discouraged from education. Grade repetition is a source of stress, ridicule and bullying by others (Yamamoto and Byrnes, 1987; Anderson, Jimerson and Whipple, 2005), negatively affects self-esteem and increases the likelihood of high-risk behaviours, school failure and dropout, as noted above.

In many countries, schools have few incentives to take into account the high costs grade repetition bears on the system. As individual schools receive their funding in relation to the number of students enrolled, they do not have to absorb those increased costs or bear the opportunity costs of lost output (Field, Kuczera and Pont, 2008). This is particularly important because alternative practices that can reduce the use of repetition, such as personalised and intensive intervention, very often have direct costs for schools.

Policy options to eliminate grade repetition

Many countries have introduced or are introducing reforms to reduce the use of grade repetition (Table 2.1). Nevertheless, there is no linear relationship between legal provisions on repetition and the extent of its actual use, which implies that culture is a main reason why grade repetition is more used in certain countries (Eurydice, 2011). Despite decisions made at central levels, typically by ministries of education, year repetition remains a common practice. Teachers widely support year repetition, as they believe in its efficacy; and schools have few incentives to reduce its level as they do not bear its costs. Therefore reducing grade repetition implies developing effective alternative strategies as well as policies aiming at culture change in schools and classrooms.

A number of evidence-based alternatives are more effective in closing learning gaps and do not hinder equity. Early support and comprehensive assessment can prevent the use of repetition. When learning gaps are observed, automatic promotion but with support, while limiting repetition, is more effective than extensively using grade repetition as a remedial strategy.

Table 2.1. Criteria and limits governing grade retention in lower secondary education

	Main criteria				Limitations			
	Attendance or family situation	Behaviour	Overall assessment	Subject results	Additional assessment opportunities	Conditional progression	Limit on number of repeated years	Change streams
Austria				✓	✓	✓	✓	✓
Belgium (fr)	✓		✓		✓		✓	✓
Belgium (nl)	✓	✓	✓		✓			✓
Czech Republic	✓			✓	✓		✓	
Denmark			✓		✓		✓	
Estonia				✓	✓			
Finland			✓		✓			
France			✓				✓	
Germany				✓	✓	✓		✓
Greece				✓	✓			
Hungary	✓			✓	✓			
Italy	✓	✓		✓	✓			
Luxembourg	✓			✓	✓		✓	✓
Netherlands	✓	✓	✓	✓	✓			✓
Poland	✓	✓		✓	✓	✓		
Portugal	✓			✓	✓			✓
Slovenia	✓			✓	✓		✓	
Spain				✓	✓	✓	✓	✓
Sweden			✓					
Turkey				✓				
United Kingdom	✓	✓	✓	✓				
TOTAL	11	5	8	15	17	4	8	8

1. Blanks indicate the criteria and limitations that are not applied. In Sweden, Turkey and the United Kingdom limitations shown in the table are not applied and there is also no limitation to grade retention.

2. In the Netherlands and the United Kingdom the main criteria governing grade retention are defined at the local or institutional level. Also, there is local or institutional autonomy to decide on the limits to catch up opportunities in Belgium, Denmark, the Netherlands and Finland. In addition, the Netherlands limitations on changing streams are decided at the local or institutional level.

Source: Eurydice (2011), Grade Retention during Compulsory Education in Europe: Regulations and Statistics, European Commission, Eurydice Thematic Studies.

StatLink http://dx.doi.org/10.1787/888932561177

Preventive measures: design assessment and support strategies for those who fall behind during the year

The most successful alternatives are focused on prevention to make repetition unnecessary, as done in Finland (Box 2.1). They consist of providing the necessary support to those falling behind before the end of the school year and putting them back on track on time, before the learning gaps widen. Evidence shows that students at risk of failing the school year would benefit in particular from additional instruction designed to accelerate the pace of learning (Gamoran, 2011). This support should be offered on a regular and frequent basis, supplementing rather than repeating the workload, using different methods and ensuring continuity in student-teacher relationships, as further reviewed in Chapter 3.

Box 2.1. The Finnish comprehensive school and modular approach to grade repetition

The Finnish education system is characterised by low repetition rates. Fewer than 2% of students who leave the compulsory nine-grade comprehensive school today at the age of 16 have repeated a grade. In upper secondary school there is no grade repetition because modules are used instead of grades. However, retention was widely used before a policy of automatic promotion combined with early intervention was implemented in the 1970s.

In comprehensive schools, since 1985 the school curriculum has been unified, without tracking or streaming students into ability groups or educational tracks. Individualised learning and differentiated instruction became basic principles in organising schooling. Students' characteristics, including personality, abilities and orientations, are taken into account in crafting learning environments and choosing pedagogical methods in schools in order to enable all students to enhance their learning. Every child has the right to individualised support provided by trained professionals as part of normal schooling. As a consequence of the interventions to create nurturing learning environments for all students, grade repetition steadily decreased and today the rates of grade repetition are negligible.

Indeed, repetition is only an option after the 9-year comprehensive school, when students can opt for a 'tenth grade', an additional year to consolidate their learning or make up their minds about future steps. This additional year after compulsory school, which serves around 3% of the age cohort annually, aims to strengthen knowledge and skills that students need in upper secondary school. For some young people, taking an additional year is simply a time-out to decide what would be the best way forward after compulsory education. Well-informed decisions about further studies or career prospects can save students from unpleasant surprises and prevent dropout or repetition of grades or courses.

In upper secondary schools, both general and vocational, there is no grade retention because modular curriculum units are used instead of grades. Students build their own learning schedules from a menu of courses offered in their school or by other education institutions. Therefore, there is flexibility and the courses selected can be completed at a different pace depending on students' abilities and life situations. Rather than repeating an entire grade, a student may repeat only those courses that were not passed satisfactorily. As a consequence of this modular structure and intensified counseling in schools, only 4% drop out during general upper secondary school, of whom half move to vocational education institutions.

Source: Välijärvi, J. and P. Sahlberg (2008), "Should 'failing' students repeat a grade? A retrospective response from Finland", *Journal of Educational Change*, Vol. 9, No. 4, pp. 385-389.

It is important to note that allowing students to move forward without a structured and engaging plan of support does not correct educational deficits, nor allow students to meet the educational standards set. Hence, preventive strategies that contribute to automatic promotion need to focus on scaffolding students' learning during the school year (Jimerson, Pletcher and Graydon, 2006; Brophy, 2006) by:

- Improving teachers' skills to teach in classrooms with more diverse attainment levels. This demands flexible instruction and high quality teacher preparation. School leaders and teachers should develop strategies together to support promoted students who have learning gaps and give teachers access to staff with expertise to help them overcome specific needs or difficulties.

- Extending learning opportunities and diversifying the strategies to support learning. The greater the variety of learning techniques available, the higher the probability that all students will benefit. Under certain circumstances the school year can be reorganised to extend learning time by introducing remedial classes before or after school, Saturday school or summer school.[2] Spending more time at school is positive for students with unfavourable out-of-school learning environments (OECD, 2010c); this will be discussed in Chapter 3.
- Strengthening meta-cognitive skills. A growing body of research emphasises the influence on children's development of meta-cognitive skills. These are related to motivation, discipline, tenacity, self-esteem, confidence and patience, and the existence of a positive and caring learning environment (see Chapter 3). For example, in Portugal a programme aiming at improving socio-emotional skills targeted at potential grade repeaters has resulted in a significant reduction in grade retention (Martins, 2010).

A careful and continuous assessment of students' needs would facilitate the design and use of tailored programmes as early as possible, when the learning difficulties emerge, to address them more effectively, reinforce learning and prevent failure. Moreover, sustained student-teacher relationships and fluid information flows between teachers would enable them to recognise and redress students' weaknesses more effectively.

Promotion with support: provide options to ensure consolidation of required knowledge

Repetition rates can be reduced by restricting the criteria that determine whether a student is to be held back and by establishing further opportunities to move forward. In recent years several OECD countries, including Austria, Czech Republic, France and Luxembourg, have narrowed down the circumstances in which grade repetition shall be applied. Among the effective strategies to circumvent repetition, the following can be highlighted:

- Use comprehensive and flexible criteria to determine which students are held back. The academic progress of students may provide too narrow information on students' improvement. Holistic assessment adapted to students' abilities can be conducted to decide whether a student should repeat. For example, in Finland assessment methods are diverse: from written tests to oral discussions (Eurydice, 2011); Spain also encourages using different assessment tools.

- Limit repetition to the subjects or modules failed instead of whole year-repetition. For example, in Canada, New Zealand and the United States, retention is usually restricted to the specific classes that the student failed. A student can be promoted in a mathematics class but retained in a language class. Usually this is complemented with additional opportunities to learn and be assessed. Further chances are available in almost all countries at lower secondary, although these may be limited to a certain number of subjects.

- Limit the number of times that students may repeat and in which grades. For instance, in many countries repetition cannot be applied in transition grades, when students' poor performance may be due to a short-term failure to adjust. Also, repetition may be limited to grades considered as fundamental to consolidate basic competences.

- Offer transition programmes allowing students to attend both new and failed classes. Another possibility is to grant conditional progression to the following grade, subject to performance in those subjects.

- Allow students to change to other equivalent educational programmes to ensure completion, when different educational pathways exist in the year to be repeated. In the Netherlands for example, students' changing tracks partially explains the large differences in repetition rates from primary (20%) to secondary (5%). In Spain, students due to repeat in secondary education can enrol into a specific programme with the purpose of reducing early school leaving (IFIIE, 2011). However, changing to different educational programmes should not affect students' further educational opportunities, as may happen in some education systems with early tracking or in systems where students with learning difficulties are diverted to special schools.[3] It should be aimed at ensuring completion and better aligning their learning interests and abilities.

Box 2.2. Reversing the culture of grade retention in France

Although there is a strong consensus in France that repetition is ineffective, incentives for teachers and schools may encourage this practice (O'Brien, 2007). To tackle this, the French Ministry of Education defined ambitious national objectives, at both the *academies* (regional educational authorities) and school level. They have established specific targets to hold schools accountable for grade repetition rates. In addition, the 2008 reform provides 2 hours of weekly individualised support and catch up opportunities during the last two years of primary school.

Results in recent years are promising. While in 1960, 52% of students had repeated a year before starting secondary education, and in 1980 this proportion remained as high as 37%, in 2009, the number of students held back accounted for only 14%. The Government has set an ambitious target to halve this figure by 2013.

Sources: O'Brien, P. (2007), "Enhancing Incentives to Improve Performance in the Education System in France", *OECD Economics Department Working Papers*, No. 570; Moisan, C. (2011), *Comment en finir avec l'échec scolaire: les mesures efficaces*, Projet de rapport national de base de la France. www.oecd.org/edu/equity

Reversing the culture of grade repetition in schools

Repetition is embedded in the culture of many school systems, so additional strategies may be needed to tackle its roots:

- Educational authorities should raise teacher awareness of its consequences and also include teachers and school leaders in searching for alternatives to support students with learning difficulties. They should offer schools and teachers the support and resources required to implement alternatives suggested above. For example, in France repetition levels have substantially decreased since school leaders are invited to explain the educational results and are encouraged to reduce the number of students retained in the same grade as described in Box 2.2.

- Financial incentives can be used for schools to reduce repetition, as they have few incentives to take into account the high costs grade repetition bears on the system. In some cases, it would imply adjusting school finance arrangements to allow schools to take into account the real costs of repetition. One option could be for

schools to retain any savings made from reductions of grade repetition so that these savings can be used for other purposes, such as financing alternatives to repetition.

- Reduction of repetition could also be introduced into accountability systems, by making schools accountable for the number of students held back, and also ensuring they focus not only on those just under the grade level but also the lowest achievers, so they support all those falling behind.

Recommendation 2. Avoid early tracking and defer student selection to upper secondary

Key findings

Early student selection has a negative impact on students assigned to lower tracks, without raising the performance of the whole student population. In addition, selection exacerbates inequities since students from disadvantaged backgrounds are more likely to be placed in the least academically oriented tracks or groups. Equity enhancing policies should:

- Delay early tracking, deferring student selection to upper secondary education through comprehensive schooling.
- In contexts where there is reluctance to delay early tracking in the short term, suppressing lower-level tracks or groups can mitigate the negative effects of tracking.
- The negative effects of early tracking, streaming and grouping by ability can be lessened by: limiting the number of subjects or duration of ability grouping, increasing opportunities to change tracks or classrooms and providing high curricular standards for students in the different tracks.

Challenge: early student selection is a common practice

Education systems face the challenge of addressing the needs of increasingly diverse student populations. Some countries have non-selective and comprehensive school systems up to the end of primary or lower secondary education that seek to give all students the same educational options by providing more personalised support within the same classrooms. Other countries respond to the diversity challenge by sorting children early on between different curricula or levels of difficulty, with the aim of serving them according to their learning needs and academic potential.

Selection occurs in all OECD countries, but there are important differences between countries in the timing and form of this selection. While the median age of first formal selection is 15 years in OECD countries (OECD, 2010b), in Finland and Spain students are not separated into different tracks until the end of lower secondary education. However, in a few countries such as Austria and Germany, selection takes place very early, when students are just 10 years old.

Table 2.2. Types of differentiation in lower secondary across countries

	Age of first selection	Number of school types or distinct educational programmes available to 15-year-old students	Percentage of students in schools where students' record of academic performance are considered for admittance (1)	Percentage of students in schools that group students by ability (1)
Australia	16	1	60	95
Austria	10	4	74	46
Belgium	12	4	52	46
Canada	16	1	53	90
Chile	16	1	70	65
Czech Republic	11	5	69	69
Denmark	16	1	24	50
Estonia	15	1	73	56
Finland	16	1	18	58
France	16	1	w	w
Germany	10	4	77	51
Greece	15	2	27	15
Hungary	11	3	90	68
Iceland	16	1	8	75
Ireland	15	4	24	96
Israel	15	2	78	97
Italy	14	3	55	56
Japan	15	2	99	67
Korea	14	3	61	90
Luxembourg	13	4	95	71
Mexico	15	3	59	69
Netherlands	12	7	97	80
New Zealand	16	1	43	98
Norway	16	1	7	73
Poland	16	1	49	46
Portugal	15	3	16	32
Slovak Republic	11	5	73	73
Slovenia	14	3	68	55
Spain	16	1	11	60
Sweden	16	1	5	74
Switzerland	12	4	70	75
Turkey	11	3	66	62
United Kingdom	16	1	20	99
United States	16	1	45	91

1. (1) refers to schools where principals indicated “always” or “sometimes” and may include responses from principals in upper secondary schools. Data not collected is referred as “w”.

Source: OECD (2010b), *PISA 2009 Results: What Makes a School Successful?* Vol. 4, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561196

Student selection can take different forms, and is often based on academic performance. In some countries, selection consists of *tracking* students into different study programmes, usually in different schools or different classrooms within the same school with different curricula and final qualifications. These generally lead to either academic or vocational programmes, and to different further educational opportunities and professional prospects. In other countries, although students follow similar curricula, they are grouped into classrooms according to their abilities and are taught at different levels of difficulty, both in the orientation and pacing of instruction. In some countries ability grouping occurs in all subjects while in other countries it is limited to one or few subjects. The extent of differentiation by school admission or grouping within the school in OECD countries is shown in Table 2.2.

The earlier the time of selection and the lower permeability between tracks, the wider the learning differences between students. Among the academic selection systems considered in this Chapter, tracking is the most rigid because students undergo substantially different curricula, while grouping by ability in one or few subjects is the most flexible.

Evidence: academic selection widens achievement gaps and inequities

Student selection, and in particular early tracking, exacerbates differences in learning between students. It has an impact on educational inequities, as any given pathway and any given school affects learning in two ways. Firstly, the teaching environment can vary, since it depends on the curriculum, the teachers and the resources. Less demanding tracks tend to provide less stimulating learning environments. Secondly, students' outcomes can also be affected by the students alongside them (Field, Kuczera and Pont, 2007). These policies determine the way students are put together or directed to separate classrooms, pathways and schools according to their abilities, and have an impact on equity and on educational failure. Evidence shows that the track where students are assigned has a great impact on their educational and life prospects (Shavit and Müller, 2006).

Proponents of grouping students according to their performance suggest that students learn better when grouped with others like themselves and when teaching can be adapted to their needs. However, research shows that it has a significant negative impact on those placed in lower levels (Hattie, 2009) and the evidence is mixed on the impact of tracking on high achievers, according to the methodology and data used (Jakubowski, 2010). Data from PISA confirms that countries with more differentiated instruction have greater inequality of performance between students, while there are no significant effects on the overall performance (Hanushek and Woessmann, 2006).

The existence of lower level tracks and streams fuels a vicious cycle in the expectations of teachers and students. Teachers can have lower expectations for some students, especially disadvantaged and/or low performing ones, and assign them slower-paced and more fragmented instruction; and students adjust their expectations and efforts, which results in even lower performance (Gamoran, 2004). Moreover, more experienced and capable teachers tend to be assigned to higher level tracks (Oakes, 2005). Students placed in lower performance groups experience a low quality learning experience, and may suffer stigmatisation and a decrease in self-esteem. Also, they do not benefit from the positive effects of being around more capable peers (Hanushek and Woessmann, 2006; Ammermueller, 2005).

Students from lower socio-economic background are particularly affected by academic selection, and in particular by early tracking. They are disproportionally placed in the least academically oriented tracks or groups early on, which widen initial inequities (Spinath and Spinath, 2005). For example, students with an immigrant background, when tracked at an early stage, may be locked into a lower educational environment before they have had a chance to develop the linguistic, social and cultural skills to attain their maximum potential (OECD, 2010c).[4]

Other shortcomings of academic selection include the inaccurate initial allocation of students to groups and the cost of providing differentiated learning structures. Early academic sorting mechanisms can be unreliable because prior attainment levels may be a weak guide to future potential. Once a student is placed in a certain group, it is often difficult to move to another one. The economic costs of differentiated structures are higher (Ariga et al, 2006); although some evidence indicates that there is an underinvestment in lower tracks (Oakes, 2005; Brunello and Checchi, 2007).

Policy options to delay selection

Since student differentiation can have a great impact on equity, depending on the time and form of selection, there is a need for great caution in the design of secondary education and rigorous assessment of the outcomes. A range of evidence-based policies exists to eliminate or limit the negative effect of early tracking, streaming and grouping by ability. For example, in Germany different states have adopted one or a combination of the following strategies (OECD, 2011a):

- Introducing comprehensive secondary schools, in which students are not tracked but kept together until a later stage. These schools offer the whole range of qualifications. However, this option is not offered throughout the country, and only in parallel with some or all of the differentiation options listed above.

- Postponing tracking from the age of 10 to 12. Although 12-year-old is still considered an early age for differentiation, this represents a step forward on which further improvement can be built.

- Merging the two lower level tracks – the *Realschule* and the *Hauptschule* – into one school, and improving the quality of education provided in these tracks. This is also the case in Austria, which is described in Box 2.4.

- Making tracks more equivalent in order to allow students from all tracks to access any type of upper secondary education.[5]

Delay selection and adopt comprehensive schooling until upper secondary school

The optimal time to track students is difficult to estimate but it is expected that children as young as 10 or 11 years old may not be in a position to make the best choices about their educational future. Studies from Germany (Woessmann, 2010), the Netherlands (Van Elk, van der Steeg and Webbink, 2009) and Switzerland (Bauer and Riphahn, 2006) examining geographic differences in the age of tracking, indicate that tracking at a later age decreases the probability of leaving the education system without completing secondary education.

Many OECD countries have introduced comprehensive education measures, and raised the age of first tracking or postponed it to a later stage of the educational process – most commonly to the end of lower secondary education. This is particularly the case in the Nordic countries, among the first to make the change in the 1970s. One of the most recent reforms was undertaken in Poland, where early tracking was postponed one year, until the age of 15. The reform raised students' performance substantially, particularly for those students that would have been assigned into vocational tracks, without hindering the performance of top achievers (Wisniewski, 2007).

Delaying tracking is a challenging reform due to entrenched institutional and cultural divides between tracks. Teachers as well as parents of students attending tracks for high performers are likely to be the main stakeholders opposing this reform. This is one of the reasons why in some countries reforms have been gradually implemented and have coincided with extension of compulsory schooling years. The implementation of de-tracking reforms in Sweden, Finland, Spain and Poland are illustrated in Box 2.3.

Reduce the level of early tracking by eliminating low level tracks

In contexts where key stakeholders may be reluctant to end early tracking, suppressing low-level tracks or groups or making these alternatives equivalent to other pathways can mitigate some of the negative effects of tracking. This recommendation is especially relevant in systems in which there are different and very impermeable tracks in a hierarchy. In recent years, Austria (Box 2.4), Luxembourg, Slovak Republic and some German states have taken steps in this direction.

There is little empirical evidence of the impact of these reforms yet, but they are expected to have a positive impact on equity and produce positive economic efficiency gains due to economies of scale. Acknowledging that delaying tracking may be difficult to implement in certain contexts, merging and suppressing lower level tracks are steps towards more equitable systems. Nonetheless a step forward would be ending early tracking.

Limit the negative effects of early selection

In countries where students are tracked, streamed or grouped by ability early, a variety of policies and practices can be explored to limit the negative effects and embrace differentiated instruction in mixed-ability settings:

- Limit ability grouping to specific subjects or replace it with short-term flexible grouping for specific purposes, to allow classes to remain heterogeneous. For instance, Nordic countries use temporary groupings with the possibility of changing groups, which allow flexibility to meet specific academic needs during the school year. Ability grouping can be limited to subjects that are sequential in nature, such as mathematics or language. For example, in Spain streaming is limited to core subjects and is only allowed on a temporary basis (Box 2.3).

- Increase flexibility to change tracks or classrooms, and improve the selection methods for the different tracks or groups. Some researchers have pointed to the existence of biases in tracking practices, in particular towards disadvantaged students. These can be avoided by establishing clear criteria and offering guidance to ensure that the more appropriate choices and placements are made.[6] In the

Netherlands for example, despite the existence of early tracking at age 12 there are several ways to correct for wrong choices and a relative high mobility between tracks is observed (OECD, 2010c; Akkerman et al, 2011).[7]

- Ensure that all tracks give students a challenging curriculum and high quality instruction. A challenging curriculum is more effective in improving students' learning than a low-level remedial curriculum (Burris, Heubert and Levin, 2006). In Scotland (United Kingdom), a secondary curriculum reform that raised standards for lower level students gradually reduced the achievement gap (Gamoran, 1996). A further possibility is to ensure more similar curricula between tracks, making it easier for students to change tracks and pursue further studies.

Box 2.3. Selected country experiences in delaying tracking

In **Sweden** a reform was conducted in the 1960s to introduce a nine-year comprehensive school system (Meghir and Palme, 2005; Holmlund, 2006). Before, compulsory schooling lasted 6 years (7 in big cities); the reform aimed to keep all students together until the 10th year. However, the reform found some resistance and an agreement was reached to track students at the 9th year into a vocational track, a theoretical one preparing for upper-secondary school or a third general track, although students remained in the same establishment. The reform was first introduced in the school year 1949-50 and was implemented progressively in municipalities that were representative of the entire country. In 1962 the Parliament decided to extend it to the whole country, giving the remaining municipalities 7 years to implement the reform. The reform resulted in mixed-ability classrooms, although there is some evidence that today streaming is increasingly used within the unified compulsory school (Båvner, 2011).

In **Finland** comprehensive schooling was introduced gradually (Pekkarinen, Uusitalo and Pekkala, 2006). The reform aimed at introducing new curricula with higher shares of mathematics and sciences, and having all students follow the same curriculum in the same establishment until the age of 16. The reform was envisaged in the late 1940s but the first experiments began in 1967. In 1968, the Parliament approved the introduction of a nine-year comprehensive school. The adoption of the new school system was introduced gradually between 1972 and 1977 on the basis of regional implementation plans, from the less populated areas of the North of the country to the capital. As a result of some opposition, ability tracking was partially retained, dividing students into ability groups in foreign language and mathematics classes, but students were grouped together in other subjects. This form of ability grouping was eventually abolished in 1985.

In **Spain,** a reform to increase the number of compulsory schooling years from 8 to 10 in 1990 delayed the choice between academic or vocational paths for two years, until the age of 16. The reform provided two more years of academic curricula, although hands-on curricula were offered in subjects of choice. The implementation encountered many difficulties, mainly related to the previous separation between academic and vocational schools, but comprehensive schooling was further embraced in the 2000 reform (Merino, 2006). Today, grouping students by ability is allowed only in core subjects (such as mathematics or language) and only on a temporary basis (IFIIE, 2011).

In 1999, **Poland** reformed the structure of its educational system, deferring tracking in secondary education, embracing a deep curriculum reform, and giving more autonomy to schools. Prior to the reform, primary school lasted eight years and was followed by four-year secondary or three-year vocational school. The 1999 reform replaced this system with a shortened primary school career of 6 years, followed by 3 years academic school and 2 years vocational education, which implied that all children were kept together for one extra year, until the age of 15. Research has shown that the deferral of tracking accounts for the substantial improvement in international assessments (OECD, 2011c).

Sources: Meghir, C. and M. Palme (2005), "Educational Reform, Ability and Family Background", *American Economic Review*, Vol. 95, No. 1, pp. 414-424; Holmlund, H. (2007), "A Researcher's Guide to the Swedish Compulsory School Reform", *Working paper* 9/2007, Swedish Institute for Social Research, Stockholm University; Båvner, P., *et al.* (2011), *OECD - Overcoming school failure. Country background report Sweden*, Government Offices of Sweden, Ministry of Education and Research. www.oecd.org/edu/equity; Pekkarinen, T., S. Pekkala and R. Uusitalo (2006), "Education Policy and Intergenerational Income Mobility: Evidence from the Finnish Comprehensive School Reform", *IZA Discussion Paper*, No. 2204; Merino, R. (2006), "Two or three vocational training pathways? An assessment and the current situation in Spain", *European journal of vocational training*, No. 37; OECD (2011c), "The Impact of the 1999 Education Reform in Poland", *OECD Education Working Papers*, No. 49, OECD, Paris.

Box 2.4. Reducing early tracking in Austria: from a pilot to a country-wide reform?

Austria is one of the countries where students are tracked into different pathways at an early age. When students are 10 years old, they are sorted into the *Hauptschule* (general lower secondary school) or the *Allgemeinbildende Höhere Schule* (AHS, academic secondary school). Later on, at age 14, students are sorted again into four parallel routes with differentiated instruction; there is a hierarchy between them. Although the placement is not rigid, most transfers are to lower rather than upper tracks. Austria is one of the countries with the highest disparities in socio-economic background between students' educational performance and opportunities (OECD, 2010a). Tracking also reinforces regional inequities, as 70% of students from the capital region enter academic schools, against only 30% in the other regions.

In 2007 the government set out to merge the general and academic lower secondary education tracks by creating a new comprehensive school category called the New Secondary School (*Neue Mittelschule*). Teaching in new secondary school classes is based on the curriculum of academic secondary schools' lower stage, and includes pedagogical innovations for a more efficient secondary education. *Neue Mittelschulen* are established on the basis of voluntary applications by existing academic and general schools. Sixty-seven *Neue Mittelschulen* were created in the 2008/09 pilot, rising to 244 pilot schools for 2009/10 and to 320 for 2010/11; 114 additional schools will start in 2011/12. This plan has attracted enthusiastic support from a large number of general schools, including both teachers and school leaders. Although a formal evaluation has not been conducted yet, a recent survey revealed that nine out of ten parents are satisfied with this new school (IFES, 2010). Other stakeholders such as municipalities and social partners, employers and unions, have actively supported the *Neue Mittelschule* initiative.

In contrast, few academic secondary schools are participating in the pilot. Only eleven academic secondary schools have become part of the project so far. Teachers, school leaders and parents may perceive becoming a *Neue Mittelschule* as a threat to their academic rank, the quality of their students and the professional status of their teachers. Academic school teachers are federal employees while both *Hauptschule* and *Neue Mittelschule* school teachers are employed by *Länder*, under different contractual provisions, which partially explains why the academic schools' labour union has opposed this initiative. In the political context, the parliament has authorised the project only as a pilot experiment, reemphasising the need for a two-thirds majority for any future legislation on comprehensive schooling and limiting the experiment to a maximum of 10% of all lower secondary schools.

In June 2011, a governmental compromise on further implementation of the model and agreement on the financial provisions was reached. According to current plans, by 2015/16 all former *Hauptschulen* will be converted into *Neue Mittelschule*. Academic secondary schools have been excluded from the reform, but they may be allowed to participate on a voluntary basis. Therefore, a dual tracking system has been preserved. Although this is a positive step ahead in the short term, the exclusion of academic secondary schools would continue to hinder equity.

Sources: Steiner, M. and the Styrian Association for Education and Economics (2011*), OECD Country Report Austria, Overcoming School Failure: Policies that Work*, Federal Ministry for Education, Arts and Culture, Austria. www.oecd.org/edu/equity; OECD (2009), *OECD Economic Surveys: Austria 2009*, OECD, Paris; OECD (2010a), *PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II)*, PISA, OECD, Paris; IFES (2010), Zufriedenheit mit der Neuen Mittelschule Elternbefragung (Satisfaction with the Neue Mittelschule: A parent survey), IFES, Wien.

Recommendation 3. Manage school choice to avoid segregation and increased inequities

Key findings

School choice has increased across OECD countries. Yet, it can result in segregating students by ability, income and ethnic background and in greater inequities across education systems. School choice schemes should include mechanisms that mitigate the negative effects on equity. In particular, the design of choice schemes should consider:

- Introducing controlled choice programmes, which introduce equity considerations, to ensure a more diverse distribution of students and avoid student "cream skimming" (selecting only the "best" students) in oversubscribed schools.
- Ensuring that disadvantaged students are attractive to high quality schools. This can include the provision of financial incentives to schools to enrol low performing and disadvantaged students, attention to selection mechanisms that schools can employ (criteria for admission, time of registration, additional fees), and providing vouchers or tax credits to make high quality schools affordable for students from disadvantaged families.
- Raising awareness, improving disadvantaged families' access to information about schools and supporting them to make better-informed choices.

Challenge: school choice is a reality in OECD countries

In the last 25 years, more than two-thirds of OECD countries have increased the extent of parental school choice in publicly (and in some countries also privately) funded schools. In the 2009 PISA survey, only 24% of principals responded that they felt no competition from neighbouring schools (the scores ranged from 2.9% in the Netherlands to 62% in Switzerland). A majority of countries combine student allocation to schools by geographical assignment and certain flexibility to choose among different public schools. However, even if choice exists in most countries, the parental exercise of school choice is often restricted in different ways, including by admission criteria.

The extent of school choice has changed the distribution of students across different educational institutions. New forms of provision like government-dependent private schools (charter schools, autonomous schools, etc.) have flourished in nearly all OECD countries, and innovative funding mechanisms for schools have been created. The emergence of new participants has drawn attention to the importance of establishing requirements for curriculum, testing, personnel qualifications, and student admission in order to ensure quality, equity and social cohesion.

School choice advocates often argue that the introduction of market mechanisms in education allows equal access to high quality schooling for all. Expanding school choice opportunities, it is said, would allow all students – including disadvantaged ones and the ones attending low performing schools – to opt for higher quality schools, as the introduction of choice in education can foster efficiency, spur innovation and raise quality overall. However evidence does not support these perceptions, as choice and associated market mechanisms can enhance segregation (Musset, 2012).

Evidence: if not well designed, school choice programmes can increase segregation and inequities

Socio-economic segregation between schools is partially explained by residential segregation. Although urban policies play an important role in redressing inequalities, school choice schemes can contribute to mitigating or widening socio-economic differences in students' intakes between schools. School choice schemes that do not take into account equity considerations can result in a greater sorting and segregation of students by ability, income and ethnic background (Musset, 2012).

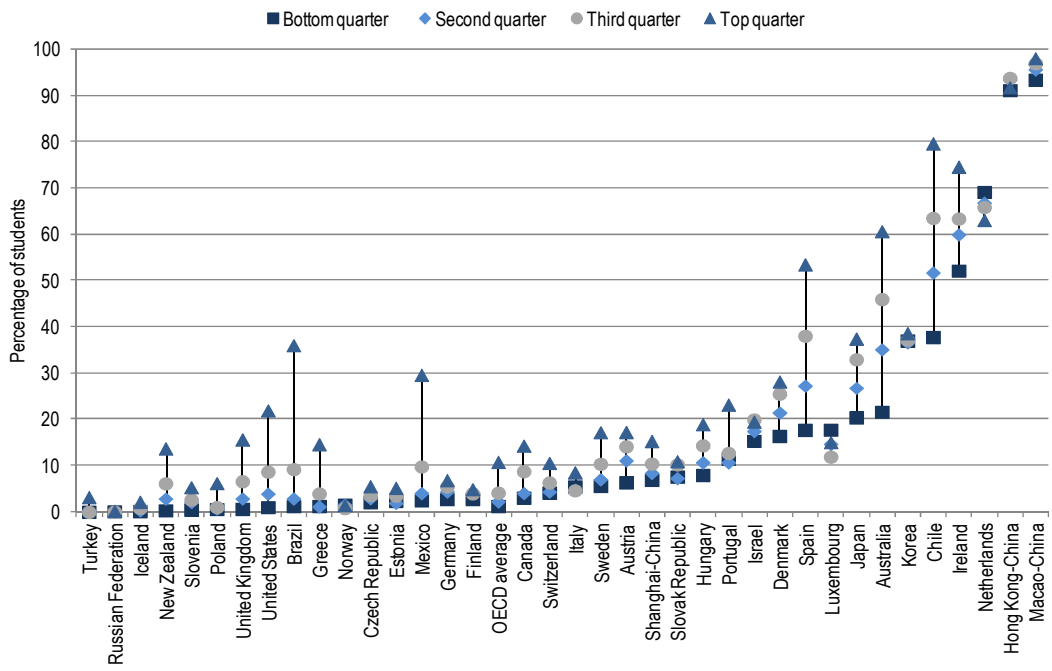
Research has shown that oversubscribed schools are selective in their admissions and tend to cream skim students who are easier to teach and more able to learn, crowding out students with low performance (Lubienski, 2006; Van Zanten, 2009). In addition, better-off parents are more likely to exercise school choice, as they have more information and resources, and usually enrol their children in high quality schools. In contrast, more disadvantaged parents tend to exercise choice less and send their children to their local neighbourhood schools. Less educated families may face more difficulties gauging the information required to make informed school choice decisions, or have different preferences over school characteristics (Hastings, Kane and Staiger, 2005). School choice can increase differences between schools in terms of performance and socio-economic background, and in many countries these differences are significant. They can be exacerbated when parents lack relevant information and schools can select their students, vouchers are not available to cover the costs, or adequate funding mechanisms are not implemented.

Although parents may be concerned about equity and integration and may support their neighbourhood school, they seek at the same time the "best" education for their children (Crozier et al, 2008; Raveaud and Van Zanten, 2007). Parents with a better-off background tend to avoid schools with a significant number of disadvantaged students and research suggests that parents prefer schools with populations ethnically similar to their own family (Schneider and Buckley, 2002; Hastings, Kane and Staiger, 2005)[8]. All these elements contribute to socio-economic segregation between schools.

Private schools provide options for parents to choose. In some OECD countries, a significant number of students attend private schools, which refer to schools that are privately managed. In some countries, private schools can receive public funding, which may explain the extent to which the most disadvantaged students enrol into them. Figure 2.2 shows significant differences in enrolment into privately managed schools by socio-economic background across OECD countries. In some countries, as Korea or Finland, there are little or no differences by socio-economic background in attendance to private schools. However, in other countries, such as Chile or Spain, very different patterns are observed between advantaged and disadvantaged students, contributing to further segregation.

Figure 2.2. Stratification between public and private schools

Percentage of students attending privately managed schools by socio-economic background (2009)



How to read this chart: This chart shows the percentage of students enrolled in privately managed schools by quarters of the PISA index of economic, social and cultural status (ESCS). Countries are ranked in ascending order by the percentage of students from the bottom quarter ESCS attending private schools. Non OECD member economies are included for comparison.

Source: OECD (*forthcoming*), *Socio-economic stratification of students in publicly and privately managed schools (tentative title)*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561025

Table 2.3 provides an overview of the extent of choice in OECD countries and the differences in performance and socio-economic background between public and private schools. It also provides country-level data on selected policies that can encourage choice while limiting its negative effects on equity. Although students are initially assigned to their neighbouring school in almost all OECD countries, in most of them selection of other public schools is allowed if places are available.

Table 2.3. School choice policies in lower secondary schools across countries

	Geographical assignment	Possibility to apply to another public school (if places available)	Public schools can apply selective admission criteria	Government is responsible for providing information on specific school choice alternatives
Australia	m	m	m	m
Austria	Yes	Yes	Yes, academic criteria	Yes
Belgium (Fl.)	No	Yes	No	No
Belgium (Fr.)	No	Yes	No	Yes
Canada	m	m	m	m
Chile	No	Yes	Yes, academic and gender	Yes, and includes performance data
Czech Republic	Yes	Yes	Yes, academic	Yes
Denmark	Yes	Yes	No	No
England	Yes	Yes	Yes, academic, religious and gender	Yes, and includes performance data
Estonia	Yes	Yes	Yes, academic, religious, gender and other	No
Finland	Yes	No	Yes, academic	No
France	Yes	Yes	No	Yes
Germany	Yes	Yes	Yes, academic	Yes
Greece	Yes	No	Yes	Yes
Hungary	Yes	Yes	Yes, academic	Yes
Iceland	Yes	Yes	No	Yes
Ireland	Yes	Yes	Yes, religious and gender	No
Israel	Yes	No	No	Yes
Italy	No	Yes	No	Yes
Japan	Yes	No	Yes, any criteria they wish	No
Korea	Yes	No	No	No
Luxembourg	Yes	Yes	No	Yes
Mexico	Yes	Yes	Yes, academic	Yes
Netherlands	No	Yes	Yes, academic	Yes
New Zealand	No	Yes	m	Yes, and includes performance data
Norway	Yes	No	No	No
Poland	Yes	Yes	Yes	Yes
Portugal	Yes	Yes	Yes	Yes
Scotland	Yes	Yes	No	Yes
Slovak Republic	Yes	Yes	Yes, academic	Yes
Slovenia	m	m	m	m
Spain	Yes	Yes	Yes, financial	Yes
Sweden	Yes	Yes	No	No
Switzerland	Yes	No	m	No
Turkey	a	a	Yes	a
United States	Yes	No	No	Yes, and includes performance data

Note: The “a” stands for category not applicable and “m” refers to missing data. In France, Mexico, Portugal, Spain, England (United Kingdom), and the United States requirements on making information available to parents only apply to public forms of school choice.

Source: OECD (2011d), *Education at a Glance 2011: OECD Indicators*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561215

Policy options to balance choice and equity

For choice to be exercised, there must be alternatives to choose from, but these should be available to all families and should not widen inequities nor exacerbate segregation. School choice schemes can be designed and managed in a way that combines the provision of diverse school options for parents and limits the negative impact on equity. Controlled choice schemes allow to combine choice with equity considerations. In addition, policies supporting those who exercise choice the least and limiting the ability of schools to select students can balance market mechanisms with an equitable distribution of students in schools.

Consider controlled choice schemes to combine parental choice and equity

Controlled choice programmes, also called flexible enrolment plans, are student allocation schemes that provide parental choice while trying to mitigate its risk of increased segregation. These schemes rely on the introduction of mechanisms to ensure that children are distributed to schools in a more diverse manner (in terms of parental socio-economic status, ethnic origin, etc), representative of their social composition, and that in the event of oversubscription, disadvantaged students are not crowded out.

The allocation mechanisms vary across countries and their effectiveness depends on the capacity to match parents' preference for quality schools with a consistent application of priority criteria benefiting disadvantaged students. The student allocation mechanism also requires a certain degree of centralisation in order to prevent inefficiencies related to handling multiple registrations, as well as delays on assignment and higher administrative costs. See selected examples in Box 2.5.

Box 2.5. Examples controlled choice in the United States, the Netherlands and Spain

In **Cambridge (United States)** there is a choice programme that ranks the preferred schools and reviews and allocates students centrally, taking capacity and diversity criteria into consideration. This controlled scheme plan was first implemented in 1981. The Cambridge plan has evolved into a system where new families visit a central registration area, choose four schools, and rank them in order of preference. The district reviews the lists and tries to assign students to their choices, but it also tries to ensure that no school exceeds its capacity and all schools reflect the district's racial and ethnic composition.

A central subscription system to assign students also exists in **Nijmegen** (**Netherlands**) for primary schools, to reach a share of 30% of disadvantaged students in each school. All the primary schools have agreed on a central subscription system based on the distribution of students in different categories. In the event of oversubscription, priority is given to siblings and children who live nearby. Subsequent priority is given to either advantaged or disadvantaged students, in order to reach the required balance, by lottery system. This policy was introduced in April 2009 and has not been evaluated yet. **Rotterdam** provides an example of double waiting lists, which allow oversubscribed schools to give preference to children who would enrich their ethnic and socio-economic mix.

In **Spain**, parents have free choice as long as there are places available. In the event of oversubscription, the first criterion taken into account is prior attendance to the institution in lower educational levels. If additional selection criteria is needed, applications are weighted according to whether there are siblings enrolled in the school, proximity to the residence, parents or legal tutors working at the school, annual family income and disabilities. Nonetheless, regional education authorities can establish quotas to preserve a balanced distribution. In addition, latecomers are also accommodated in a balanced way, since the number of pupils per class in public and publicly-funded private schools in the same area can increase 10% in order to allow them to attend oversubscribed schools. Despite the regulations to avoid cream skimming, advantaged students are overrepresented in publicly subsidised private schools because these are located in high-income neighbourhoods, and the proximity criterion plays a key role in the allocation procedure. Charging complementary fees and irregularities in the admission process have repeatedly been observed (Calero, 2005).

Sources: Kahlenberg, R. (2006), Helping Children Move From Bad Schools to Good Ones, *Education Week*, the Century Foundation; Ladd H., E. Fiske and N. Ruijs (2009), "Parental Choice in the Netherlands: Growing Concerns about Segregation", Prepared for School Choice and School Improvement: Research in State, District and Community Contexts, Vanderbilt University, October 2009. Calero, J. (2005), Spain: Country Analytical Report, Equity in Education Thematic Review.

Design incentives to enable disadvantaged students to attend high quality schools

In addition to controlled choice programmes, countries can consider a number of incentives for schools to enrol disadvantaged students and to promote the exercise of choice by disadvantaged parents. Financial incentives can be offered to make low performing or disadvantaged students more attractive to schools. In addition, careful attention must be paid to the explicit or implicit selection mechanisms that schools can use, which include admission criteria and time of registration.

Some countries have experimented with providing more funding for low performing students to offset the additional costs to educate them and make them more attractive to popular schools through progressive voucher schemes or weighted student funding ("virtual vouchers"). These are based on two main elements: funding follows the students on

a per-student basis and this amount depends on the educational needs of the children (Ladd and Fiske, 2009). Since the amount of the voucher is higher for children with the biggest needs, schools will have greater incentives to attract such students and to give them resources that address their needs (Levin and Belfield, 2004), so contributing to reduced segregation.

"Cream skimming" may occur if schools have discretion over admission criteria, time of registration or tuition fees. For instance better informed parents tend to enrol their children in the school of their choice very early on, in order to obtain a slot in the highest quality schools (Ladd, Fiske and Ruijs, 2009). This can be avoided by setting a similar admission time in all schools. If admission policies are established by a central independent authority, schools have fewer opportunities to select students using particular criteria that benefit to better-off children. In many OECD countries the criteria that can be applied by schools are generally restricted. In Chile, an educational reform introduced in 2009 has forbidden schools receiving public funding to select students based on their socio-economic background or prior educational attainment at primary school (Brandt, 2010)[9]. In Sweden, independent schools received 85% of average per-student spending in each local authority and were allowed to charge a small fee when this measure began. However, since 1997 independent schools receive the same funding as public schools and additional fees are forbidden. (See Box 2.6).

The costs of attending the desired school, including enrolment fees, may deter parents from deprived backgrounds from choosing that option for their children. In some countries, the choices that parents can actually consider depend on their ability to pay. Vouchers or tax credits can be offered to reduce the financial burden of tuition fees for low income families. Other costs, such as transport costs and related arrangements incurred in looking after the child before or after school, additional lessons, uniforms, classroom materials, textbooks, school trips and voluntary contributions, should also be considered as research shows that these can influence choices (Waslander, Pater and van der Weide, 2010). Vouchers may not fully cover all tuition fees and, even when they do, schools may be able to charge top-up fees excluding students from deprived backgrounds. In the case of Chile, Elacqua (2009) suggests that tuition fees are one of the main determinants of stratification between public and private voucher schools.

Box 2.6. School vouchers in Sweden

In the early 1990s, Sweden introduced major reforms to decentralise primary and secondary education to municipalities and In 1992 introduced a voucher programme enabling families to choose among public and private schools, which are referred as independent schools.

Independent schools can receive public funding if they are approved by the schools Inspectorate, on certain conditions. Grant-aided independent providers are required to follow the national curriculum and are forbidden to establish admittance policies based on academic ability, socio-economic status or ethnicity. Independent schools were allowed to charge top-up fees until 1997 (Böhlmark and Lindahl, 2007). The grant per pupil the independent school receives ("grundbelopp", basic grant) is the same amount the pupil would have cost the municipality if the pupil had attended a school run by the municipality. The amount is calculated in the same way as the municipality calculates the costs for its own public schools, based on the budget for the coming year. On top of the basic grant, the municipality must pay a supplementary grant ("tilläggsbelopp") for pupils with impairment that qualify for extra-ordinary supporting measures.

The number of students enrolled in grant-aided independent schools has risen considerably in the compulsory schooling years, from 2% in the school year 1994-95 to more than 10% in the year 2009/10, and the expansion is even greater in the upper-secondary level. The reform is consolidated and Sweden has become an international example for school vouchers. Evidence of the impact on academic performance shows slight positive effects, although these are insignificant for students with low-educated parents or immigrant background (Böhlmark and Lindahl, 2007). It has also resulted in more segregation between schools (Nicaise *et al*, 2005).

Sources: Björklund, A., et al. (2005), The market comes to education in Sweden: an evaluation of Sweden's surprising school reforms. New York: Russell Sage Foundation; Böhlmark, A. and M. Lindahl (2007), "The Impact of School Choice on Pupil Achievement, Segregation and Costs: Swedish Evidence", IZA Discussion Paper No. 2786. Nicaise, I., et al. (2005). Sweden: Country note, Equity in Education Thematic Review.

Support parents to make well-informed choices

One of the main reasons why disadvantaged parents exercise choice less is because they experience more difficulties in obtaining and gauging information on alternative schools and their educational quality. As presented in Table 2.3, in 13 out of 34 OECD member countries, no information is provided to parents on the schools that can be chosen (OECD, 2011d).

Information asymmetries can be reduced by increasing the information available to all parents and using strategies to target more specifically parents who exercise choice the least and/or send their children to low performing schools. Education systems can:

- Raise awareness about the importance of exercising choice, in particular targeting those who exercise choice the least. Active information campaigns using multiple channels facilitate information reaching parents, and they can be supported in making well-informed choices. For example, a district in Milwaukee (United States) set up an extensive programme to inform parents and help them in the choice process. It included sending volunteers door-to-door in low income and non-English speaking communities, setting up information booths in shopping malls, organising a fair and establishing phone hotlines. As a result of all these actions, 95% of families filled in their school choice forms (Godwin *et al*, 2006).

- Provide more and more relevant information about schools to parents. Parents should be aware of the strengths and weaknesses of alternative schools as well as the dates and procedures for school enrolment (OECD, 2010c). Information should also be available in selected foreign languages and should be accessible to parents with limited literacy. In 3 out of 4 countries where information is provided, local authorities are involved in the provision of such information. Since local authorities have first-hand knowledge of schools and at the same time have a general interest in student allocations, they may be better suited to provide quality information and to reach out to parents.

- In some countries performance indicators are published to foster competition, while in others this information is not published to avoid further segregation and stigmatisation. Whatever the rules on publication, information may not be easy to access or to understand. Information that includes performance data can lead to further segregation unless it is accompanied by other measures to support choices. Value-added information, which measures the actual contribution of the school, should be preferred to raw performance data (OECD, 2008).

Recommendation 4. Make funding strategies responsive to students' and schools' needs

Key findings

Available resources and the way they are spent influence students' learning opportunities. To support equity and prevent school failure, countries should aim for equitable and effective resource allocation mechanisms. To this end, it is important that fair funding strategies:

- Provide sufficient resources to improve the quality of early childhood education and care (ECEC) and promote access, in particular for disadvantaged families.

- Take into consideration that the instructional costs of disadvantaged students may be higher. To respond to this need, formula funding seems to be the most efficient and transparent method of funding schools incorporating needs criteria. Other options include designing specific funding programmes at the system level, although these can represent an additional bureaucratic burden on schools.

- Balance decentralisation/local autonomy and accountability to ensure that resources reach disadvantaged schools and are well spent. Decentralising educational funding to local authorities can increase responsiveness to local needs – but it may not be effective if either the funding is inadequate or local authorities lack the required capacity. Schools should keep autonomy in areas where school-level knowledge is more relevant, such as managing their personnel, while the central level should control resource levels and performance standards.

Challenge: disadvantaged schools may need additional resources

Resourcing schools involves technical complexity and political sensitivities. Students and schools have different socio-economic profiles and varying needs, and funding schemes should reflect these. While it may be recognised that differences in instructional costs need to be taken into consideration in funding allocations, there are debates about the amount of

additional funding that schools in which disadvantaged students are concentrated should receive to effectively respond to their learning needs, as reviewed in Chapter 3. According to principals' reports, disadvantaged schools in OECD countries have lower student-teacher ratios but less experienced and qualified teachers (See Table 3.1). Since the literature on resourcing indicates that high quality teaching has a greater impact than some resource intensive practices such as smaller class sizes (Rivkin, Hanushek and Kain, 2005), it is likely that current arrangements are not optimal for disadvantaged students.

Evidence: the way resources are spent can make a difference

Research shows that providing more money to schools is not enough to improve their performance, as reviewed in Chapter 1 (Hanushek, 2003). However, the way money is allocated to schools does matter for equity. There are three main methods to determine the annual allocation of resources that schools receive:

- *Administrative discretion*, which is based on an individual assessment of each school. Although it can serve schools' needs more accurately, it requires extensive knowledge of each school and measures to prevent misuse of resources. For example, bidding by submitting budget estimates encourages schools to submit inflated demands, which can lead to arbitrary cuts by funding agencies.

- *Incremental costs* is another type of school funding scheme, which takes into consideration the historical expenditure to calculate the allocation for the following year – but this offers no incentive for schools to reduce their expenditure or increase their efficiency. Administrative discretion and incremental costs are often combined, and usually these are used in centralised systems.

- *Formula funding* relies on a mathematical formula which contains a number of variables, each of which has attached to it a cash amount to determine school budgets (Levacic, 2008). In such formulas there are four main groups of variables used across OECD countries: (1) basic: student number and grade level-based, (2) needs-based, (3) curriculum or educational programme-based, (4) school characteristics-based. In general, formula funding is better at ensuring equity and can be more efficient than administrative discretion, because it avoids anomalies related to differences in bargaining power.

A well designed funding formula can be the most efficient, stable and transparent method of funding schools (Levacic, 2008). Formula funding combines both horizontal equity – schools with similar characteristics are funded at the same level and vertical equity – schools with higher needs receive higher resources. However, this type of funding may be difficult to implement and may not cover all schools' costs (infrastructure, staff, etc). For example, funding formulae require transparency and to be sufficiently detailed and reliable data (Levacic, 2008).

After a certain threshold of expenditure, the way resources are spent is more important than the total amount spent. At the school level, more funding does not lead automatically to better results. Even in the case of disadvantaged students, quasi-experimental studies in the Netherlands showed that extra resources alone, for personnel and for computers, have not shown substantial positive effects (Oosterbeek et al, 2007). Similarly, in the case of teachers,

it has been observed that their quality may be more important than the quantity of teachers available (OECD, 2010b).

As discussed in Chapter 1, investing in high quality early child education and care is a particularly efficient. Yet, most OECD countries under-spend on ECEC services. Countries' investment per student is nearly 2.5 times as much for tertiary education than for ECEC and participation rates are low, particularly for disadvantaged children (OECD, 2011d).

The benefits of investing in ECEC are observed in the performance of 15-year-olds in PISA. Students who had attended pre-primary education for more than one year outperformed the rest, and in many countries the difference is equivalent to more than one school year, even when taking into account the students' socio-economic background. There is considerable cross-country variation on the impact, which may be explained by factors such as quality. Investment in ECEC is not always enough given its potential benefits. This leads to child care shortages, low quality education, unequal access and the segregation of children according to their family income – and poorer schooling outcomes in the following stages (OECD, 2006).

Policy options for funding mechanisms to respond to the needs of schools and students

Each country has its own approach to school financing, and the policy options considered are inevitably intertwined with the economics and politics of its education system. Moreover, financing is at the crossroads of dimensions such as decentralisation, autonomy and accountability. There are several policy options to improve funding to overcome school failure and reduce dropout in OECD education systems.

Provide access to quality early childhood education and care, particularly to at-risk children

In recent years, several OECD countries have made important efforts to increase access to ECEC by advancing the compulsory schooling years or increasing the number of places available for children, including Australia, Austria, Poland and Spain.[10] Improving quality and funding for the 0-6-year-old educational stage is particularly important. However this sector is underfunded in OECD, and provision is usually private and unregulated (OECD, 2006). Lack of funding implies that many of the private, community or voluntary organisations are unable to support child care staff with in-service training and time to improve their pedagogical practice, so they are poorly paid and trained. In the case of children over age 3, pre-primary classes are often characterised by high child-staff ratios, teachers without early childhood certification, poor learning environments, and the scarcity of care personnel (OECD, 2006). At this initial educational stage, direct public funding of services is associated with more effective governmental monitoring of early childhood services, advantages of scale, better quality across the country, more effective training for educators and a higher degree of equity in access (OECD, 2006).

An adequate funding system should reinforce ECEC services to improve quality and foster access by disadvantaged families. Participation of the most disadvantaged will increase if adequate financial, educational and health resources are provided. Some countries have opted for a targeted approach by promoting access for disadvantaged groups. This is the case in the United States, where only 45% of 3-to-5-year-olds from low-income families are enrolled in pre-school programmes, compared to almost 75% from high-income families (Fuller et al., 2002). There are risks however: targeted programmes segregate, may stigmatise

A corrigendum has been issued for this page. See: http://www.oecd.org/dataoecd/48/16/49631046.pdf

and may fail to provide ECEC for many of the children eligible or for a large group of more moderate income families that are also unable to afford the private costs (OECD, 2006).

Take into consideration that disadvantaged students can be more costly to educate

Among the different existing funding strategies for schools, formula funding using a needs-based group of variables is most conducive to equity. In this approach students are typically the unit of measure and money follows the student if she/he moves to another school. This funding strategy allows an additional component to account for students' supplementary educational needs relating to socio-economic disadvantage and learning difficulties (Ross and Levacic, 1999). The additional resources are meant to provide further help for pupils such as additional teaching time, specialised learning material and in some cases smaller classes. The actual variables taken into account generally depend on the availability of data,[11] and difficulties can emerge with legal issues related to privacy or when there is disagreement on the selection of indicators.

If the design of finance schemes does not take into account the sometimes marked differences in the costs of students' instruction, schools may provide lower quality education or seek alternative ways of raising money that can hinder equity. For instance, in the Czech Republic, the main reason to diagnose Roma children as "mentally retarded" was to apply for additional funds that were reserved for students with difficulties due to certain medical disabilities (Strakova, Simonova and Polechova, 2011). In an effort to reduce this misallocation of both students and funding, taking effect from the academic year 2011-2012, schools can ask for higher funding also for socio-economically disadvantaged students.

Another reason for the inappropriate diversion of resources is when local authorities do not receive enough resources overall. A study in the United Kingdom found that local governments divert school funding intended for disadvantaged students to other purposes (Sibieta, Chowdry and Muriel, 2008).[12] And where authorities have differing levels of funding, those with higher fiscal capacity can supplement educational expenditures from their own tax revenues, increasing economic inequalities between jurisdictions (Chetty and Friedman, 2011). For example, in Austria and the Czech Republic there are significant differences in educational expenditures across regions (Steiner and the Styrian Association for Education and Economics, 2011; Strakova, Simonova and Polechova, 2011). As reviewed in recommendation 3 on school choice, progressive voucher schemes allow extra resources for the children and schools that need them the most. The amount can be determined according to the educational needs of the children (See Box 2.7).

Box 2.7. Weighted student funding schemes in the Netherlands and Chile

Formula funding with additional weights for disadvantaged students was adopted in the **Netherlands** for all primary schools in 1985. Schools with substantial numbers of weighted students receive more funds. Although the level of funding for each school is determined by the needs of individual students, there is no requirement that schools use these extra resources directly on these students. Schools can for example choose to reduce the number of students per class. The "weight" of each student is determined by the parents' educational level. Empirical research conducted by Ladd and Fiske (2009) studying the Dutch funding system show that these mechanisms have succeeded in distributing differentiated resources to schools according to their different needs: primary schools with a high proportion of weighted students have on average about 58% more teachers per student, and also more support staff.

In **Chile**, a voucher system was initially introduced with equal weights for all students; research indicates that it significantly increased segregation between schools (Elacqua, 2009; Hsieh and Urquiola, 2006). In 2008, a weighted voucher scheme was adopted, to provide more resources for students from low socio-economic background and additional support to schools where disadvantaged students are concentrated. The value of the voucher is 50% higher for students from low socio-economic backgrounds and for indigenous children, and in 2011 the voucher has been increased 21% for the most disadvantaged students (approximately 40% of the recipients). In addition to the supplementary money linked to students and schools, there is a quality assurance system including improvement plans for schools that want to accept this voucher (See Box 2.9). Top-up payments by parents of students that are not considered disadvantaged are allowed in publicly subsidised private schools. Elacqua (2009) analyses the impact of the weighted voucher and finds preliminary evidence that it can mitigate the segregation effects induced by universal vouchers.

Sources: Ladd H., Fiske E. and N. Ruijs (2009), "Parental Choice in the Netherlands: Growing Concerns about Segregation", Prepared for School Choice and School Improvement: Research in State, District and Community Contexts, Vanderbilt University, October 2009; Elacqua G. (2009), "The impact of school choice and public policy on segregation: Evidence from Chile", Centro de Politicas Comparadas de Educacion, Universidad Diego Portales, Santiago, Chile; Hsieh C. and Urquiola M. (2006), "The effects of generalized school choice on achievement and stratification: Evidence from Chile's voucher program," Journal of Public Economics, Elsevier, vol. 90.

Regular school funding can be supplemented with programmes that allow governments to address specific needs. For example, in systems with large between-school variation and a concentration of low performing schools, there is a case for creating specific area-based support structures for schools. Targeted programmes can be an effective way of achieving results and represent a significant share of educational budgets in some countries. In the United Kingdom for example, starting from April 2011, schools receive an additional GBP 430 (EUR 500) a year for every student they enrol that is entitled to a free school meal (a measure of disadvantage), with schools spending this money in whatever way they judge best. Concerns about ensuring that schools actually spend the additional resources on disadvantaged students have been addressed by targeted programmes outside the funding formula accompanied by stronger accountability measures (Kendall et al, 2005, DfES and HM Treasury, 2005, Simkins, 2004).

However, an excessive reliance on supplementary programmes may generate overlap, difficulties in coordinating allocations, excessive bureaucracy, inefficiencies and lack of long term sustainability for schools. This indicates a need to rationalise programmes and simplify school funding. For example, a review of schooling in Mexico found that funding is distributed through a large number of programmes and recommended they be rationalised in

order to distribute resources more efficiently, clearly and equitably; as well as to avoid the additional bureaucratic burden on schools (OECD, 2010d). In addition, these programmes are often short term, and do not enable schools to have sustainable approaches to support disadvantaged students.

In the Netherlands a programme is being designed to pull together the resources of different educational stakeholders in the South of Rotterdam, the most deprived area of the country.[13] Box 2.8 gives additional examples from France and Greece.

Box 2.8. The French and Greek experience of creating special educational areas

In **France**, special educational areas date back to 1981 and were initially conceived to promote new educational projects and partnerships with local stakeholders in order to increase academic performance (Bénabou, Kramarz and Prost, 2009). A hallmark of area-based support was the *Zones d'Éducation Prioritaire* (ZEP, "Priority Education Zones"), which involved 15% of students in primary and lower secondary schools in more than 800 areas. The additional resources were mainly aimed at reducing class sizes and giving incentives to teachers and extra funding to the schools, enabling them to provide supplementary hours of instruction. Schools had discretion on resource allocation. Comprehensive evaluations pointed to the need for improvement (O'Brien, 2007; Bénabou, Kramarz and Prost, 2009). The additional resources had a very limited impact on academic performance. The quality of teachers decreased as salary bonuses are insufficient to attract more experienced teachers, and accelerated career incentives resulted in higher turnover. The socio-economic composition of ZEP schools worsened and attending these schools led to stigmatisation.

The results showed the need to concentrate more resources on fewer schools. In the school year 2006-2007, the existing networks were replaced by two networks to differentiate by levels of need: *Réseaux de Réussite Scolaire* (RRS, "Networks of School Success") which include around 14% of students in compulsory schooling; and *Réseaux d'Ambition Réussite* (RAR, "Networks of Ambition Success") which are confined to the most disadvantaged schools. The RAR represents expenditure per student 16% higher than the average. RAR schools receive additional funding mainly for supplementary teachers (90%) and bonuses (8%). In the school year 2010-2011 a new programme has been implemented aiming at spreading innovations in pedagogy, school life and human resources, and providing a safer environment (Moisan, 2011).

In **Greece**, a new policy initiative currently underway establishes Zones of Educational Priority (ZEP). This policy shifts the focus from targeting designated populations (Roma, immigrants and Muslim minority) to targeting whole areas. In particular, it aims to broaden the scope to include disadvantaged schools within poor regions, thereby focusing attention on disadvantaged schools and disadvantaged students. ZEP pulls together resources to tackle social and regional inequities, enabling a broadened perspective of their causes. ZEP areas are identified using social and educational indicators, aiming at all pre-primary, primary and secondary schools in need of support. Support is not limited to students and schools, but also targets parents, so it relies on co-operation between the Ministry of Education and other ministries (employment, justice). Therefore, the ZEP emerges as a horizontal network of educational and social policy actions in regions experiencing multiple deprivation (Greek Ministry of Education, forthcoming).

Sources: Bénabou, R., F. Kramarz and C. Prost (2009), "The French Zones d'Education Prioritaires: Much Ado about Nothing?" *Economics of Education Review,* Vol. 28, No. 3, pp. 345-356; O'Brien, P. (2007), "Enhancing Incentives to Improve Performance in the Education System in France", *OECD Economics Department Working Papers*, No. 570; Moisan, C. (2011), *Comment en finir avec l'échec scolaire: les mesures efficaces*, Projet de rapport national de base de la France. www.oecd.org/edu/equity; Greek Ministry of Education (2011), *Overcoming School Failure: Policies that Work, National Report Greece.* www.oecd.org/edu/equity

Balance autonomy with resource accountability to ensure resources reach those with the greatest needs

While funding strategies of schools in OECD countries differ, the responsibility for allocating resources is generally linked to the degree of autonomy and accountability in school systems. The degree of decentralisation of educational funding is linked to the responsiveness of local authorities to local needs. However, decentralisation may not be effective if local authorities lack the capacity and/or funding is inadequate. Local authorities should be familiar with appropriate standards of provision. Jakubowski and Topinska (2009), studying the educational decentralisation to local governments in Poland, conclude that local governments lack expertise in the area of teaching, and if they follow the advice of local teachers, there is a bias to teacher group interests rather than the interests of the education system as a whole.

Since the 1980s, school reforms in several OECD countries have increasingly given schools greater autonomy, in an effort to increase performance (OECD, 2010b). On average, 81% of school principals in OECD countries can decide on budget allocations within their school; school autonomy is greatest in the Netherlands, the Czech Republic. The relationship between school governance and performance, and equity, is complex. Woessmann (2003) finds that school autonomy in setting standards and the size of the school budget are negatively related to student performance, while school autonomy in personnel management and process decisions are positively related to performance. This suggests that school systems should ensure external control of resource levels and performance standards, but give schools autonomy in process areas where school-level knowledge is more relevant, such as managing their personnel. This is confirmed by the PISA 2009 test: in countries where schools have greater autonomy over what is taught and how students are assessed, students tend to perform better (OECD, 2010b).

Box 2.9. Funding disadvantaged students and their schools in Chile

In **Chile**, a funding programme targeting disadvantaged students and their schools, the *Subvención Escolar Preferencial* (SEP), was introduced in 2008. The larger share of educational expenditure is distributed per student, topping-up a flat-rate voucher (described in Box 2.7). In addition, there is an allocation for schools that enrol a significant number of disadvantaged students. Acceptance of these supplementary funds is voluntary but leads to mandatory technical support and accountability to ensure value for money.

Schools choosing to receive the supplement are required to elaborate a plan for educational improvement, setting objectives for improvement in educational outcomes and defining measures to support students with learning difficulties. In addition, participating schools are unable to cream skim their students' intake by ability or socio-economic background, and cannot charge top-up fees for vulnerable students.

SEP schools are classified into three categories: autonomous, emerging or recovering schools, based on the results of a national standardised test (SIMCE) and, to a lesser extent, other performance criteria. Autonomous schools are allowed to design their own educational improvement plan and are accountable for results. Emerging and recovering schools are supported by the Education Ministry in drafting their progression plans, and recommendations may be prescriptive in some cases. Improvement plans should contain strategies and actions on curricula, leadership, climate and funding for the following four years. Schools have access to technical assistance for school improvement, including through certified private providers, and an education quality assessment system. Information is provided to parents on the progress of their children and their school.

The additional funding that schools can receive is significant. An autonomous school where less than 15% of the students are poor receives approximately a 50% increase in the school subsidy for each vulnerable child. If the concentration of poor students is at least 60%, schools can receive approximately an extra 10% of the base voucher for every student, including those who are not classified as vulnerable.

Source: Brandt, N. (2010), "Chile: Climbing on Giants' Shoulders: Better Schools for all Chilean Children", *OECD Economics Department Working Papers*, No. 784.

Greater decentralisation and local autonomy have reinforced the need for accountability systems. The incentive to deliver good results to all students depends in part on the ways in which schools are held accountable for their results, in addition to their capacity and support to improve. Accountability systems are necessary to ensure that educational resources are spent in effective ways to raise students' performance and that disadvantaged students actually benefit from additional funds. Research in OECD countries indicates that both internal and external accountability systems are valuable. However, the best actual methods of accountability depend on the specific context. Evidence from the OECD Review on Evaluation and Assessment and Evaluation Frameworks for Improving School Outcomes clearly signals the importance of context and equity considerations in effective school evaluation schemes.[14]

There is no simple formula under which any policy to increase autonomy, accountability or choice will improve student outcomes. For example, in countries where schools are held to account for their results through publication of achievement data, schools that enjoy greater autonomy in resource allocation tend to do better than those with less autonomy.

However, in countries where there are no such accountability arrangements, the reverse is true (OECD, 2010b).

In addition, external accountability through high-stakes testing can lead to teaching to the exam. It can also lead, given the difficulties in reliably measuring educational outcomes, to distorted results, which undermines the allocation of efforts and resources (Mitch, 2004). Moreover, accountability without consideration of the particular difficulties that schools face can penalise low performing schools as these are more likely to fail their accountability targets. This can lead to fewer resources, less support and further deterioration of these schools (Bacolod, DiNardo and Jacobson, 2009). Research evidence suggests using value-added approaches to take into account students' previous achievements as well as their socio-economic backgrounds (OECD, 2008).

Recommendation 5. Design equivalent upper secondary pathways to ensure completion

Key findings

Despite the growing importance of upper secondary education, in some countries it is at this level that school failure appears as many students dropout. Measures to improve the quality of upper secondary education and ensure completion include:

- Ensuring that academic and vocational tracks in upper secondary education are equivalent. This may imply improving the quality of vocational education and training, allowing transitions from academic to vocational studies and removing dead ends that do not lead to further study or employment.
- Reinforcing guidance and counselling mechanisms in order to enable students to make better-informed choices in upper secondary education and in their transitions to further studies or the labour market.
- Designing targeted measures to prevent dropout. These can include diversifying opportunities to obtain an upper secondary qualification, with a range of pathways including work-based training and/or certification based on a range of subjects and abilities and providing incentives to stay in school until completion.

Challenge: upper secondary education not responsive to student needs

Upper secondary plays a crucial role in today's education systems

Upper secondary education is a strategic level of education for individuals and societies, representing a pivot between a basic educational foundation and a move into advanced study or employment. Upper secondary is the last stage of education enrolling the great majority of young people. Around 80% of young people in OECD countries gain upper secondary qualifications, compared to just one quarter gaining tertiary-level qualifications (OECD, 2011d).

Upper secondary education has to orient and prepare students for their future educational and occupational pathways, in ways that are appropriate for every individual. Challenges for upper secondary schools need to be seen in the context of a student population with a very

wide range of characteristics, in terms of their aspirations and their prior knowledge and skills.

Many students do not complete this level

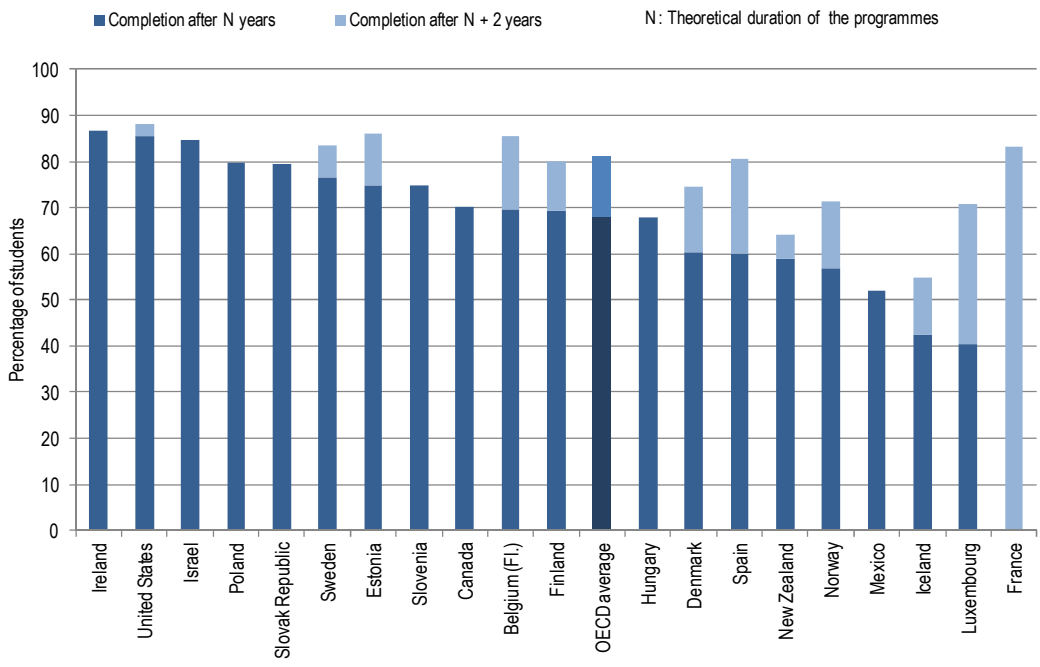
Upper secondary often represents a challenging change for students. It gives them the opportunity to choose the content of their studies to a significant extent, in tracks and courses reflecting their various interests and academic or professional goals (OECD, 2010g). Many education systems divide students into separate types of education at the upper secondary level, with different qualifications at the end of the programmes and different expectations of transition to further education or work (Field, Kuczera and Pont, 2007). In particular, students can generally choose between academic programmes leading to tertiary education, and vocational or technical programmes providing training for particular jobs in the labour market.

While upper secondary is not compulsory in most OECD countries, approximately 90% of OECD young people leaving lower secondary education enrol in it, while the remaining 10% leave the education system without relevant qualifications. However, between 10% and 30% of students starting upper secondary do not complete it (See Figure 2.3). While some may recover through adult education and second chance programmes, one out of five young people has still not completed upper secondary or the equivalent by the age of 34.

In most OECD countries, the number of people who leave school without an upper secondary qualification is falling, but in some countries the numbers continue to rise (OECD, 2011d). Some groups are at bigger odds of dropping out than others, including more disadvantaged students, migrants and boys (OECD, 2011d). These dropouts result in high economic and social costs for OECD countries and for the individuals themselves, as explained in Chapter 1.

Figure 2.3. How many students complete upper secondary programmes?

Ratio of graduates to new entrants based on cohorts (2009)



How to read this chart: This chart shows the extent to which students successfully complete upper secondary programmes in the stipulated time of graduation (dark) or two years after (sky blue). For example, in the United States, 86% of students complete their upper secondary programmes by the expected time, whereas 3% complete them two years after. Delayed completion may occur in countries where it is common to take a break in the studies, or to repeat a year or to change programmes.

1. In France, the time for completion considered is N+3 instead of N+2.

Source: OECD (2011d), *Education at a Glance 2011: OECD Indicators*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561044

For some, the opportunity costs of staying in education are higher with the opening up of labour market alternatives.[15] In times of economic crisis however, the drop in demand for low skilled youth calls for greater efforts to attain completion, as there are high opportunity costs for dropouts (OECD, 2010e; see Chapter 1 on how economic recession affects youth).

Upper secondary school programmes build on the skills and knowledge developed in primary and lower secondary education. The greater the differences between students, the more challenging it is for schools to provide learning opportunities that meet the capacities and interests of all students (OECD, 2004). Many students may arrive at upper secondary without having attained basic skills from lower secondary. According to PISA 2009 (Figure 1.2), across OECD countries around 19% of 15-year-olds fail to reach level 2 of reading proficiency across OECD countries on average; this figure rises to over 25% in Austria, Chile, Israel, Luxembourg and Mexico (OECD, 2010f). This suggests that a significant proportion of students who leave lower secondary and enter upper secondary may not have sufficient knowledge and skills to be successful at this educational level, and that this diversity has to be taken into account in the design and implementation of curricula and teaching.

The entry to upper secondary education (age 15 in most OECD countries) is a key turning point, in some countries just before the end of compulsory education. In most OECD countries, the age of compulsory education is 16, but there are exceptions such as Belgium, the Netherlands and Poland where education has been made compulsory up to the age of 18 with the option of studying part-time between the ages of 15-16 and 18.

OECD countries are confronted with the challenge of delivering attractive and relevant academic and vocational options for students to complete their education and be well prepared for the next stages, either employment or further studies. Well designed upper secondary education needs to be relevant to the daily lives of students and in parallel needs to have validity and relevance to the labour market. In addition, measures are needed to target completion for the most disadvantaged, who have higher risks of dropping out.

Evidence: the design of upper secondary is key to success in overcoming school failure

Upper secondary provision varies between vocational and academic programmes

Success in the transition into upper secondary depends on many factors. This phase coincides with an adolescent stage when motivation for studies tends to fall in relation to that in primary education (OECD, 2011e). Although dropping out it is the result of a long process of student disengagement, as reviewed in Chapter 1, evidence shows that the quality and the design of upper secondary have an impact on its incidence (Lyche, 2010): the attractiveness and relevance of the pathways offered to students in upper secondary are essential to motivate them to stay in education.

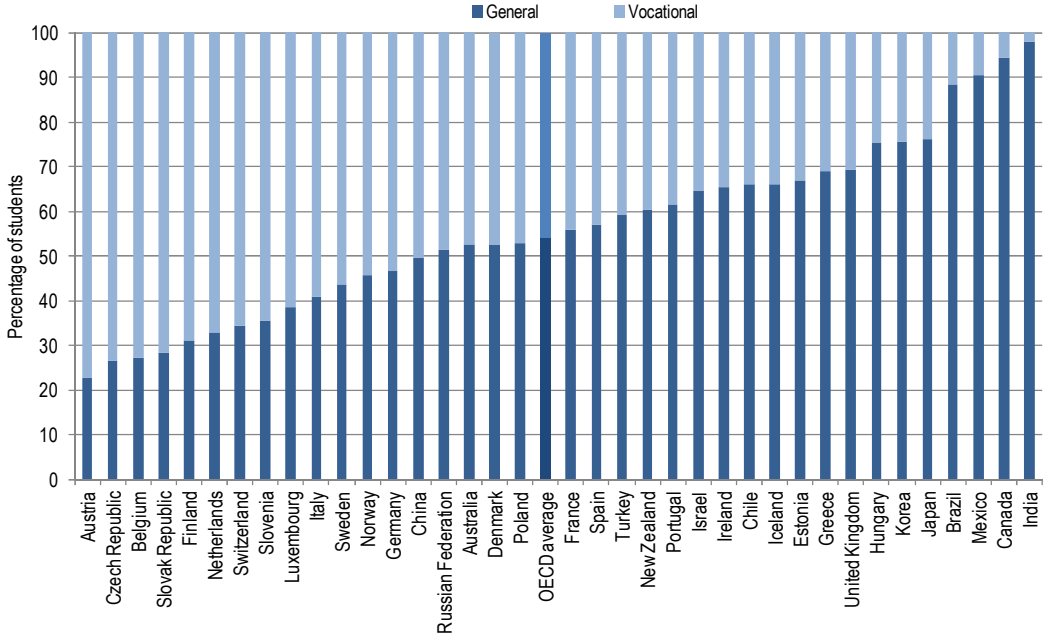
Although almost half of the students in upper secondary education are enrolled in vocational education and training (VET) programmes (OECD, 2011d), this average masks significant differences between countries. A group of countries has more than two thirds of their students enrolled in VET (among them: Austria, Belgium, Czech Republic, Finland, the Netherlands and Slovak Republic), while in another group, less than one third of students are enrolled in VET (Canada, Estonia, Greece, Hungary, Japan, Korea, Mexico, United Kingdom) (Figure 2.4).[16] In many countries upper secondary vocational programmes are school-based, while in countries such as Austria, Czech Republic and Iceland, more than 40% of vocational and technical programmes have a combination of school and work based elements; in Denmark, Germany, Hungary, Ireland and Switzerland this figure surpasses 75% (OECD, 2011d).

VET programmes have tended to suffer from a poor reputation in many countries, as these seemed to be of limited relevance for the labour market and a weak option in upper secondary education (OECD, 2010g). For instance vocational tracks tend to concentrate students with lower socio-economic backgrounds, and to have higher dropout rates (OECD, 2007). Students enrolled in VET at age 15 in most OECD countries do not tend to perform as well according to PISA 2009 as those attending non-vocational tracks, after controlling for gender and a number of family characteristics (OECD, 2011d). The differences in performance are the largest in the Netherlands, Greece and Belgium although there is a group of countries, including Sweden, Luxembourg, Portugal, Switzerland and Mexico, with a positive difference in favour of students in vocational streams (OECD, 2010e). This can imply that students' skills when they begin VET are lower, or that VET is not preparing students with basic skills in literacy, numeracy and science.

The existence of different tracks in upper secondary education (academic, technical and vocational) presents a challenge to equity but also an opportunity for secondary education completion if well designed. Different tracks may stratify students and offer possibilities of variable value, whether for the labour market or for further studies. Some programmes may not allow students to transfer from one track to another, or may be terminal and not allow students to re-enter the education system. This can result in dead ends for students who may have made wrong choices earlier on or changed interests. Lack of flexibility and equivalence of the different tracks available in upper secondary education can result in dropout. Other systemic factors such as grade repetition in these tracks or lack of apprenticeship places for students enrolled in VET also exert influence on students' non completion.

Figure 2.4. Enrolment in upper secondary education by programme orientation

Students enrolled in general or vocational education and training programmes (2009)



How to read this chart: This chart shows the orientation of upper secondary programmes, which can lead either to general or vocational qualifications. In Austria only 23% of students are enrolled in general upper secondary programmes, while 77% of students pursue vocational programmes. Non OECD member economies are included for comparison.

Source: OECD (2011d), *Education at a Glance 2011: OECD Indicators*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561063

Policy options to design equivalent and diverse upper secondary education pathways

Promote equivalent pathways; in some cases, improve vocational education and training

Upper secondary should respond to the needs of students and the labour market through the flexible combination of vocational and academic choices (Sahlberg, 2007). It is important to ensure both equivalence of these diverse pathways, and consistency in quality: all programmes should deliver benefits from both a learning and outcomes perspective and be valued in the same way. The aim should be that *all* students complete the equivalent of upper secondary school and have the opportunity to pursue tertiary studies if they so desire (Nicaise

et al., 2005). In the United States, a recent study called Pathways to Prosperity (Symonds, Schwartz and Ferguson, 2011) highlights the important value of VET for the development of well balanced young people, who acquire a combination of work oriented and academic skills to support their transition from school to work.

Equivalence between pathways would ensure that students can choose between a range of choices in upper secondary and that VET is not perceived as a second best option. As an example, between the mid-1980s and mid-1990s, Nordic countries implemented a number of educational reforms focusing largely on expanding vocational education options and making them equivalent to more academic options, as a means of encouraging students to remain in school (Bäckman *et al.*, 2011).

In many cases, equivalence implies improving the quality of VET. High quality and relevant VET can provide a mix of academic and technical skills for those who may have difficulties with school and more academic learning. It can also encourage more students to stay in the education system, and improve labour-market outcomes of graduates (OECD, 2010e).

Greater equivalence also means ensuring transferability between programmes to avoid dead ends and pathways which lock individuals out of further learning options. As more young people continue their studies or change their target occupations, it is necessary to give VET students the opportunity to enter some form of relevant post secondary education, including in another field of study or work. As an example, 17% of Dutch upper secondary vocational students continue into tertiary education (Akkerman et al, 2011).

To ensure equivalence with more academic programmes, VET students need to develop similar generic skills, as those usually delivered in more academic upper secondary programmes. Literacy, numeracy and scientific knowledge and skills are as important as the professional ones that VET graduates acquire for their life-course employment, learning and socialisation (OECD, 2010g). For this purpose, students should be systematically assessed upon entering VET to ensure a basic minimum and provide targeted support if needed. VET programmes should prepare their students with high level generic skills (Symonds, Schwartz and Ferguson, 2011). Table 2.4 summarises relevant examples.

Table 2.4 Recent initiatives for more equivalent pathways

Germany	Since 2009 university access is offered to all those with a master craftsman (Meister) or technician certificate with 3 years work experience in relevant subjects (Hoeckel and Schwartz, 2010 in OECD, 2010g).
Flemish Community – Belgium	This region recently started offering VET students the possibility of completing an additional third year, to obtain the secondary education diploma which gives them access to higher education (OECD, 2010e).
Spain	A reform in 2011 represents a step towards the integration of VET into the education system, as it provides more permeability between upper secondary pathways. The Strategic Plan for Vocational Training aims at providing greater flexibility to access VET as well as further studies, and creating a more varied supply of programmes (IFIIE, 2011).

Source: OECD (2010g), Learning for Jobs, OECD, Paris; OECD (2010e), Off to a Good Start? Jobs for Youth, OECD, Paris, IFIIE (Institute for Teacher Training and Educational Research and Innovation) (2011), Overcoming School Failure: Policies that Work, Spanish National Report, Ministerio de Educacion, Spain. www.oecd.org/edu/equity.

Ensure the availability and quality of guidance and counselling

Some young people may find themselves in programmes they are not interested in, because they had insufficient information or because they were not ready to make an occupational choice at the critical moment (Field, Kuczera and Pont, 2007). Wrong choices can eventually lead to dropout. Therefore guidance and counselling services are fundamental to help students make an appropriate educational and career choice among diverse upper secondary pathways and stay on to completion. This can be especially helpful in systems that offer a range of vocational and general studies leading to further study, work or combinations of the two (OECD, 2004).

Policies need to ensure that secondary schools have counselling and guidance support personnel who give effective career guidance. Existing guidance tends to be more focused on academic choices than on occupational ones and this may not be useful for students who are considering vocational education and training.[17]

Guidance and counselling services need to engage more fully with the world of work in order to ensure their advice is accurate and appropriate, and specifically to give students the opportunity to try out future professions. Practical options include visits and meetings with representatives of local industries, community agencies, work simulation and work placements (OECD, 2004).

Many OECD countries have introduced initiatives that target guidance and counselling. For example, the Netherlands has drafted a plan to improve the quality of guidance and coaching in all vocational education institutions. In Ireland, enhanced guidance counselling provision, targeted at supporting junior secondary students, is provided in schools with the highest concentrations of disadvantage.

Targeted measures to prevent dropout: flexibility and incentives

Upper secondary is crucial, and probably one the last opportunities education systems have to encourage and support students to stay in education – even past the age of

compulsory schooling – to improve their skills and their long-term prospects. Attractive alternatives in secondary education can provide opportunities for these students to complete this stage and reduce dropout. Some OECD countries have made important efforts to increase completion rates by diversifying the sorts of programmes and qualifications provided (Lamb, 2008). Among examples adopted in a number of countries are:

- Secondary school diplomas based on satisfactory achievement in a prescribed number of core or common subjects, and a range of elective subjects.
- Varied requirements for qualifications.
- The provision of alternative pathways for secondary school graduation, such as recovery programmes or study in alternative settings, and study opportunities through adult learning centres.
- The provision of work-based training contracts such as apprenticeships, and alternative routes involving combinations of work, training and study (Lamb, 2008).

Often, the most effective way to re-engage students who have dropped out is through work-based vocational programmes. Evidence on apprenticeships, for example, suggests that they can produce positive employment and earnings outcomes for school dropouts who enter this form of training. Such alternatives are important and help re-integrate students into the education system while providing them with occupational skills, motivation and experience for a more efficient transition from education to work (OECD, 2010e). It can also ensure smoother school-to-work transitions for the apprentices (Bäckman *et al*., 2011), and more commitment from employers, which results in a qualification that is valued by the labour market. However, to be effective apprenticeships need to rely on strong links with the labour market.[18]

Some countries have introduced the concept of an education or training guarantee until the age of 18 (Austria, New Zealand and United Kingdom) (OECD, 2010e). Others seek to guarantee a given basic education level (Australia and Netherlands). The impact of these measures on overall completion rates is still inconclusive. Rumberger and Lim (2008) claim that it does have an impact whereas Bradshaw, O'Brennan and McNeely (2008) point to the fact that several states in the United States have raised the age of compulsory schooling to 16, 17, or even 18 years of age, but that as yet there is little conclusive evidence of the impact of such a policy.[19] Raising the leaving age on its own is not enough to avoid early school leaving; it needs to be accompanied with incentives for students to stay, develop core competencies that are relevant in their further education or working life.

Recent initiatives in some OECD countries (United Kingdom, Netherlands and Canada) aimed to improve the academic skills of dropouts not only by raising the minimum school-leaving age but above all by implementing flexible measures to diversify academic pathways to enable everyone to succeed (Table 2.5).

Table 2.5. Approaches to flexible pathways and on raising minimum school-leaving age

France	In 2009 VET programmes were reduced from 4 to 3 years in order to increase the number of students obtaining a professional diploma (*baccalauréat professionnel).* The reform comprises the strengthening of student support and guidance mechanisms and curricular changes including training periods in real work environments (Moisan, 2011).
Ireland	The public funded programme Youthreach offers general education, vocational training and work experience to unemployed early school leavers aged 15-20. Basic skills and practical work training, general education and the use of new technology are part of the programme. Youthreach learners are entitled to receive training allowances and additional allowances for meals, travel and accommodation are also available.
Manitoba (Canada)	In September 2011, Manitoba raised the compulsory school age from 16 to 18, and enabled students 15 years or older to participate in activities and programmes, including work training, that provide educational benefits outside regular school courses.
Netherlands	All young people up to age 18 must attend school until they attain a basic qualification. A strong policy on truancy and absenteeism is applied. The Ministry has signed performance agreements on dropout with municipalities and schools in 39 regions (2008-2011). Options such as combining work and study have been explored to respond to dropouts over 18.
Norway	The Certificate of Practice Initiative provides at-risk students with the possibility of choosing a two year upper-secondary programme (school and practice based) leading to a lower level degree recognised by industry, rather than the full four year VET upper secondary. Upon completion, they can complete their full upper-secondary degree adding the remaining two years. From the pilot, it appears that dropout rates are very low and 65% of the students continue their education.
Spain	Initial Vocational Qualification Programmes (PCPI), which were introduced in 2009, aim at providing more flexibility to complete lower secondary education. They target students age 16 and older who do not hold a lower secondary certificate, and 15-year-olds on certain conditions. Initial vocational qualification programmes include specific modules which allow the student to receive training in a particular professional area; general modules to develop basic competences and to ease transition from the education system to the labour market; and modules leading to the Certificate in Compulsory Secondary Education.

Sources: OECD (2010e), Off to a Good Start? Jobs for Youth, OECD, Paris; Moisan, C. (2011), Comment en finir avec l'échec scolaire: les mesures efficaces, projet de rapport national de base de la France. www.oecd.org/edu/equity; Irish Ministry of Education and Skills (forthcoming), Overcoming School Failure: Policies that Work, National Report Ireland. www.oecd.org/edu/equity; Fournier, G. and D. Mildon (forthcoming), OECD Country Background Report: Overcoming School Failure (Equity) In Canada, Council of Ministers of Education, Canada. www.oecd.org/edu/equity; Akkerman, Y., et al. (2011), Overcoming School Failure: Policies that Work, Background Report for the Netherlands, Ministry of Education, Culture and Science, Den Haag. www.oecd.org/edu/equity; Markussen, E., et al. (2008), "Completion, drop-out and attainment of qualification in upper secondary vocational education in Norway" in H. Høst (ed.), Continuity and Change in Norwegian Vocational Education and Training (VET), Norwegian Institute for Studies in Innovation, Research and Education (NIFU STEP), Oslo, pp. 31-53; IFIIE (Institute for Teacher Training and Educational Research and Innovation) (2011), Overcoming School Failure: Policies that Work, Spanish National Report, Ministerio de Educacion, Spain. www.oecd.org/edu/equity

Incentives can also be designed for students to stay in education. These may be especially relevant for students in financial need, who might be forced or tempted to leave education when the opportunity cost is high. Some countries have used financial assistance or rewards to encourage poorer students to stay in school or improve their performance. The Mexican programme Opportunities (*Oportunidades*) and the British Education Maintenance Allowance[20] have had relative success in giving students incentives to stay in the education system. A similar initiative has been implemented in New York recently with positive results. Also, Spain introduced support grants (*Becas de Mantenimiento*) in 2009, which provides EUR 1 350 per school year (subject to minimum performance requirements) to students from low income families who have not obtained a relevant qualification and are at risk of dropping out (IFIIE, 2011). However, the complexity of the design of these programmes, their high cost and their mixed results indicate a need also to consider other feasible alternatives (Slavin, 2010).

Conclusion: system level policies to reduce school failure

The way education systems are designed can exacerbate initial inequities and have a negative impact on student motivation and engagement, eventually leading to dropout. Improving system level policies will reinforce equity across the system – and in particular benefit disadvantaged students, without hindering other students' progress. Five recommendations can contribute to prevent failure and promote completion of upper secondary education:

1. Eliminate grade repetition

Grade repetition is costly and ineffective in raising educational outcomes. Alternative strategies to reduce this practice include: preventing repetition by addressing learning gaps during the school year; automatic promotion or limiting repetition to subject or modules failed with targeted support; and raising awareness to change the cultural support to repetition. To support these strategies, complementary policies need to reinforce schools and teachers' capacities to respond appropriately to students' learning needs, and to provide early, regular and timely support. Decreasing grade retention rates also requires raising awareness across schools and families about the costs and negative impact on students and setting objectives and aligning incentives for schools.

2. Avoid early tracking and defer student selection to upper secondary

Early student selection has a negative impact on students assigned to lower tracks and exacerbates inequities, without raising the performance of student populations. Early student selection should be deferred to upper secondary education while reinforcing comprehensive schooling. In contexts where there is reluctance to delay early tracking, suppressing low-level tracks or groups can mitigate its negative effects. Limiting the number of subjects or duration of ability grouping, increasing opportunities to change tracks or classrooms and providing high curricular standards for students in the different tracks can lessen the negative effects of early tracking, streaming and grouping by ability.

3. Manage school choice to avoid segregation and increased inequities

Providing full parental school choice can result in segregating students by ability, socio economic background and ethnic background and generate greater inequities across education systems. Choice programmes can be designed and managed to balance choice while limiting its negative impact on equity. There are different options possible: Introducing controlled choice schemes can combine parental choice and ensure a more diverse distribution of students. In addition, to ensure balance, introducing incentives for schools to make disadvantaged students attractive to high quality schools, school selection mechanisms and vouchers or tax credits can be alternative options. Policies are also required to improve disadvantaged families' access to information about schools and to support them in making informed choices.

4. Make funding strategies responsive to students' and schools' needs

Available resources and the way they are spent influence students' learning opportunities. To ensure equity and quality across education systems, funding strategies should: guarantee access to quality early childhood education and care (ECEC), especially for disadvantaged families; take into consideration that the instructional costs of disadvantaged students may be higher and weighted funding formula seems to be the best option of funding schools from an equity perspective. In addition it is important to balancing decentralisation/local autonomy with resource accountability to ensure support to the most disadvantaged.

5. Design equivalent upper secondary education pathways to ensure completion

While upper secondary education is a strategic level of education for individuals and societies, between 10 and 30 percent of young people starting do not complete this level. Policies to improve the quality and design of upper secondary education can make it more relevant for students and ensure completion. Among the different policy options include: Making academic and vocational tracks equivalent by improving the quality of vocational education and training, allowing transitions from academic to vocational studies and removing dead ends. In addition, reinforcing guidance and counselling for students and designing targeted measures to prevent dropout include diversifying pathways to obtain an upper secondary qualification and providing incentives to stay in school until completion.

NOTES

[1] For instance, in the Czech Republic, the compulsory education requirement is fulfilled by the number of years in education, not necessarily by completion of lower secondary up to its last grade. Year repetition thus has consequences for enrolment in upper secondary.

[2] Many countries provide learning opportunities beyond the traditional academic year, which can help students who are falling behind to catch up with their peers. Studies examining the effects of summer schools have concluded that these have modest but positive effects on academic achievement over the summer (Cooper et al, 2000). Little research has been conducted on the impact of summer programmes on later grades, but some studies have reported that the effects persist for at least a few years (Jacob and Lefgren, 2004), although their magnitude varies considerably across grades (Matsudaira, 2008). Students in primary school appear to benefit more than those in secondary school, but researchers have pointed to the difficulty in attracting older students (Cooper et al, 2000). The content of the programmes should be linked to the academic curricula and different instructional methods should be explored (Lauer et al, 2006). The duration of the programmes should depend on the specific achievement targets, as longer programmes are more costly and do not necessarily lead to higher student achievement. Programmes that offer small group instruction, particularly one-on-one tutoring, are more effective for at-risk students.

[3] The practice of placing students with learning gaps outside of mainstream education has been continuously reported in the Czech Republic in recent years, in particular in the case of Roma children (Strakova, Simonova and Polechova, 2011).

[4] For example, in Austria, Germany and the Netherlands higher proportions of immigrant students are observed in the lower tracks of compulsory education and in vocational and training education (OECD, 2010c).

[5] This greatly reduced, though did not entirely eliminate, the tracking system, because many secondary schools had their own streaming systems to differentiate students according to ability.

[6] Guidance is particularly important in education systems with differentiated structures. There is a strong need for a better concentration of guidance resources in the final two years of schooling. This should take the form both of increased resources (particularly time) for student advisers to work with these students, and of curriculum-based careers assistance (OECD, 2003).

[7] For example, students who succeed in vocational education and training can accumulate qualifications and access tertiary education after one to three extra years of additional study. Many students make use of this longer route: 17% of Dutch students continue to higher education after completing upper secondary vocational education (MBO4), while 41% of students access this level directly from academic upper secondary education (HAVO/VWO) (Akkerman et al, 2011).

[8] Some researchers have estimated the proportion of migrants that would push natives to opt out of local schools to be between 35% and 40% in Denmark (Rangvid, 2007) and between 50% and 60% in the Netherlands (Karsten, 1994).

[9] This is not the case in Chile, where top-up fees are allowed as long as they remain below a certain threshold. A recent OECD working paper on Chile suggested linking vouchers to income and requiring schools to accept all children with a maximum top-up payment that would be zero for the poorest children, in line with current laws, and increase gradually across the different income brackets (Brandt, 2010).

[10] In Spain the programme Educa3 targets children up to 3 years old and aims at increasing the number of places available and improving access for children living in rural areas with scattered populations.

[11] Countries most typically use readily available measures, such as free school meal eligibility in the United States and the United Kingdom, to assess disadvantaged background and census data. Test results can also be taken into account.

[12] This is one of the reasons that lead to the introduction of an explicit "pupil premium" for disadvantaged students (OECD, 2011f). However, the additional funds are considered to be relatively low compared to other countries (the Netherlands and Chile) and it is unclear whether it would be enough to cover the additional costs of enrolling disadvantaged students.

[13] A National Programme for a 'Quality Leap' is designed to transform this deprived city area to an area which is strong in: a dynamic economy, an up-to-date physical infrastructure and a highly competent population. One of the ambitions of this programme is to develop a 'Children Zone', like the one in the suburb of Harlem in New York (the United States). More information is available at: http://www.rijksoverheid.nl/documenten-en-publicaties/convenanten/2011/09/19/zuid-werkt-nationaal-programma-kwaliteitsprong-zuid.html.

[14] The review launched in 2009 looks at the various components of assessment and evaluation frameworks that countries use with the objective of improving student outcomes. These include student assessment, teacher appraisal, school evaluation and system evaluation. The analysis focuses on primary and secondary levels of education. More information is available at: www.oecd.org/edu/evaluationpolicy

[15] In times of economic growth, there may be good job opportunities for low skilled young people, leading to their dropping out to become employed.

[16] The educational stage where vocational courses are offered also differs across countries. In Germany, for example, 60% of young people undertake a vocational programme at upper secondary level. In other countries, especially English-speaking countries, VET programmes tend to be postponed to post-secondary level.

[17] An OECD study on career and guidance found that in Belgium (Flanders), Finland, Hungary, Norway and Switzerland, students in vocational upper secondary school received less individual career counselling than those pursuing academic studies (OECD, 2004).

[18] To ensure the matching between VET programmes and the needs of the enterprises and the introduction of apprenticeship, Sweden has recently created National Programme Councils. Similarly, in Spain the 2011 VET reform has reinforced the co-operation between the Government and social and economic stakeholders in the design and execution of more relevant educational programmes to meet the needs of the labour market.

[19] Raising the age of compulsory schooling has however been shown to have a significant impact on lifetime wealth and health (Oreopoulos, 2007).

[20] This programme has been discontinued in 2011.

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CHAPTER 3.
IMPROVING LOW PERFORMING DISADVANTAGED SCHOOLS

This chapter looks at how to improve equity and reduce school failure at the school level. It focuses on low performing disadvantaged schools, to identify the best policy strategies to support their efforts in reducing school failure. It starts by analysing what are the specific challenges schools with high proportions of disadvantaged students face and the reason why they are at risk of low performance. Then, it presents five recommendations to improve the performance of these schools. While they apply to all schools, they are particularly relevant for low performing disadvantaged schools, where they may be harder to achieve but can deliver improvements: developing and supporting specialised school leadership; fostering a positive and supportive school environment; training, recruiting and retaining competent teachers; ensuring effective learning strategies; and finally linking parents and communities with these schools for sustainable improvement.

Tom is a 13-year-old boy living in a disadvantaged suburban area of Amsterdam who attends his neighbourhood school. His family migrated to the Netherlands when he was only 4 years old and he joined the Dutch education system. Tom learnt Dutch and has always followed the regular school curricula. However, the instruction received in pre-primary and primary was not optimal for children like Tom; teachers were not always well prepared, and his single mother was unable to support him academically or emotionally during these years. While Tom is a strong candidate to leave school without completing upper secondary education, it is likely that he will continue and finish secondary education – because he is being assessed, he has been identified as a potential dropout in his school, and he and his teachers are receiving adequate support to help him finalise his studies.

This chapter focuses on schools, which are at the heart of education systems: the way they deliver education can contribute to improved fairness and inclusion. As with the case of Tom in the Netherlands, most disadvantaged schools across OECD countries work hard every day to support and help their students in reaching their education potential. The analysis of country practices that has supported this publication shows that there is an extremely wide range of programmes and strategies with these aims, but there is no consistency or common understanding across countries of the school practices that are successful in guiding schools to support students like Tom.

This chapter proposes five policy recommendations to support low performing disadvantaged schools in improving equity in education and reducing school failure.[1] It aims to help policy makers understand how disadvantaged schools with low performance can be supported to succeed with their students. Disadvantaged schools are defined as schools with high proportions of disadvantaged students.

A harmful equation: disadvantaged students and low performing schools

The reality is difficult to face: in most OECD countries, students' attainment is typically lower in schools where most of the students come from disadvantaged backgrounds.[2] The reasons for this phenomenon are multiple but the primary ones are: students' socio-economic background has a strong impact on their performance; and many disadvantaged schools are unable to counteract its negative impact, and may indeed accentuate it (OECD, 2010a; Bjorklund and Salvanes, 2011). Lack of systemic support and flexibility and limited or ineffective use of resources, including staff, make the challenges of low performing disadvantaged schools difficult to meet.

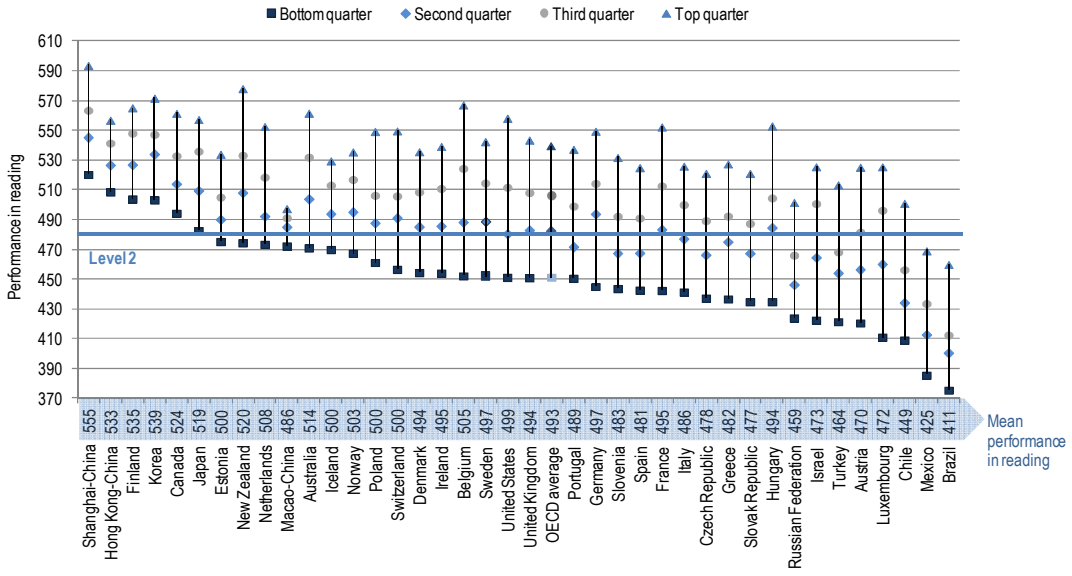
Students from lower socio-economic background are at higher risk of low performance

Although students from disadvantaged socio-economic backgrounds are not necessarily low performers, the socio-economic status of students does have a powerful influence on performance, as explained in Chapter 1. OECD PISA results show that students with lower socio-economic status (SES) have lower achievement levels on average than those from higher socioeconomic backgrounds as shown on Figure 3.1.

A corrigendum has been issued for this page. See: http://www.oecd.org/dataoecd/48/16/49631046.pdf

Figure 3.1. Students' socio-economic background has a strong impact on performance

Reading performance by quartiles of the PISA Index of Economic, Social and Cultural Status (2009)



How to read this chart: This chart shows differences in performance by quartiles of socio-economic background measured by the PISA Index of Economic Social and Cultural Status (ESCS), from the most disadvantaged students (bottom quarter on the ESCS) to the most advantaged ones (top quarter). Countries are ranked in descending order by the mean score of the most disadvantaged students. Country labels indicate the mean performance of all students in brackets. A score below Level 2 in reading performance indicates a lack of basic literacy skills. For instance, in New Zealand, disadvantaged students score on average 475 points and advantaged students, 578, while the average national score is 520. Non OECD member economies are included for comparison.

Source: OECD (2010a), *PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II)*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561082

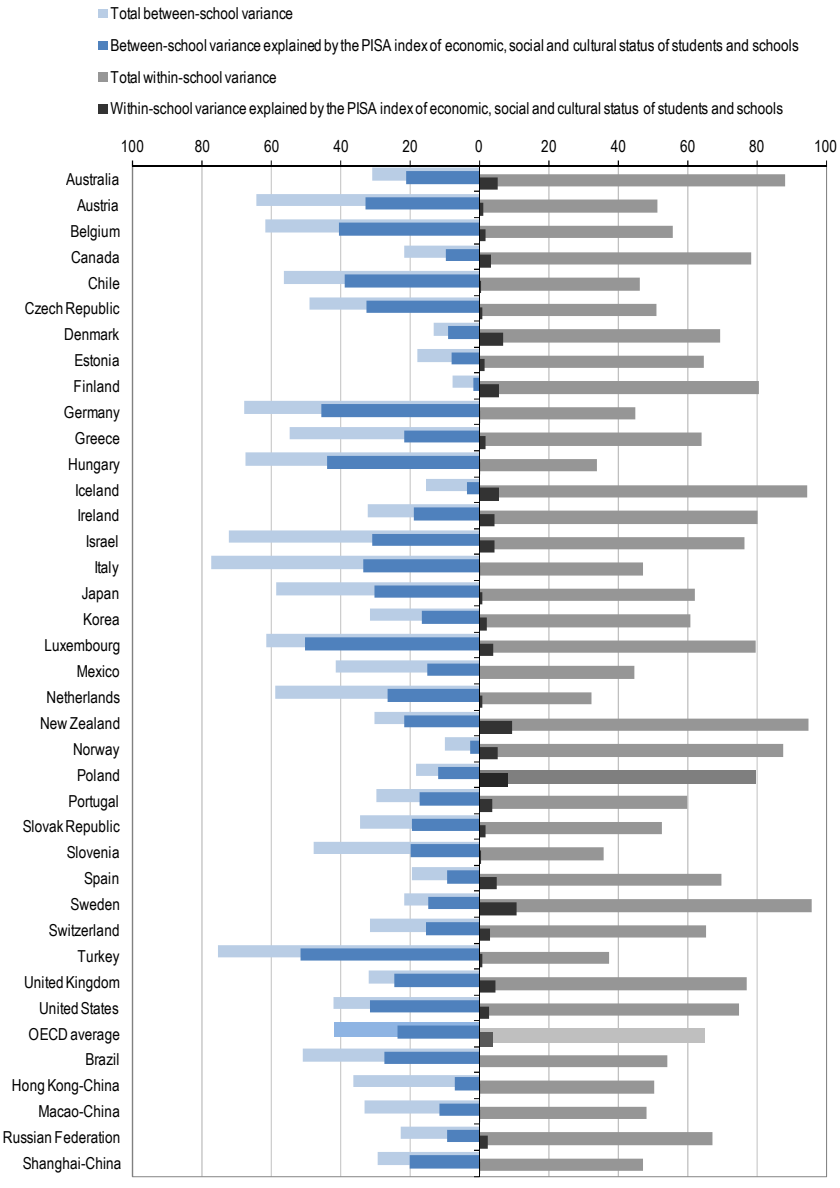
The data confirm that after years of schooling, many 15-year-old students in OECD countries do not reach the minimum level of skills required for their development; their family socio-economic background continues to be a handicap in their schooling.

Disadvantaged schools may reinforce the negative effect of low socio-economic background

Several sources of evidence show that the linkages between disadvantaged schools and low performance are strong. In the Third International Mathematics and Science test (TIMSS, 2007), there is a positive association between schools with fewer students from economically disadvantaged homes and higher mathematic achievement, with almost a 50 point gap (Mullis, Martin and Foy, 2008). The results of PISA confirm this (OECD, 2010b).[3] Figure 3.2 shows the extent to which the reading performance of 15-year-olds varies between and within schools in each country.[4]

Figure 3.2. Differences in reading performance between and within schools

Variation in reading performance between and within schools, and variation explained by the school's socio-economic intake as a percentage of the variance in student performance in PISA (2009)



How to read this chart: This chart shows the extent to which performance differences in reading between students are explained by the school that they attend (between school variance) or by other factors (within school variance). The variance in performance is shown with and without taking into account the socio-economic background of students and schools. In Finland, for example, most of the variance in performance observed is within schools rather than between them, which indicates that schools have similar achievement levels and do not select students by academic ability. Differences in the socio-economic background of schools account for a small proportion of the already-small performance differences between schools, which suggest that there is little segregation along socio-economic lines. Non OECD member economies are included for comparison.

Source: OECD (2010a), *PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II)*, OECD, Paris.

StatLink *http://dx.doi.org/10.1787/888932561101*

While all countries have large differences in performance within schools, in most countries the differences between schools is also wide and explained in significant part by the social mix of students across schools: a student's achievement is influenced by the average

socio-economic background of his/her peers. In countries such as Italy, Germany, Hungary, Luxembourg and Turkey there are large differences between schools, linked to the schools' and students' socio-economic backgrounds.

On the other hand, there is little association between individual performance and the schools children attend in the Nordic countries (Finland, Norway, Iceland, Denmark, Sweden), Estonia, Spain, Canada and Poland.

Disadvantaged schools tend to reinforce students' socio-economic inequalities: Figure 3.3 shows the extent to which a student who goes to a school with a more socio-economically disadvantaged intake can be predicted to perform worse in reading on the PISA test. The magnitude of the differences in performance associated with the socio-economic composition of the school is striking, especially in Austria, Belgium, Czech Republic, Germany, Israel, Japan[5], and the Netherlands.

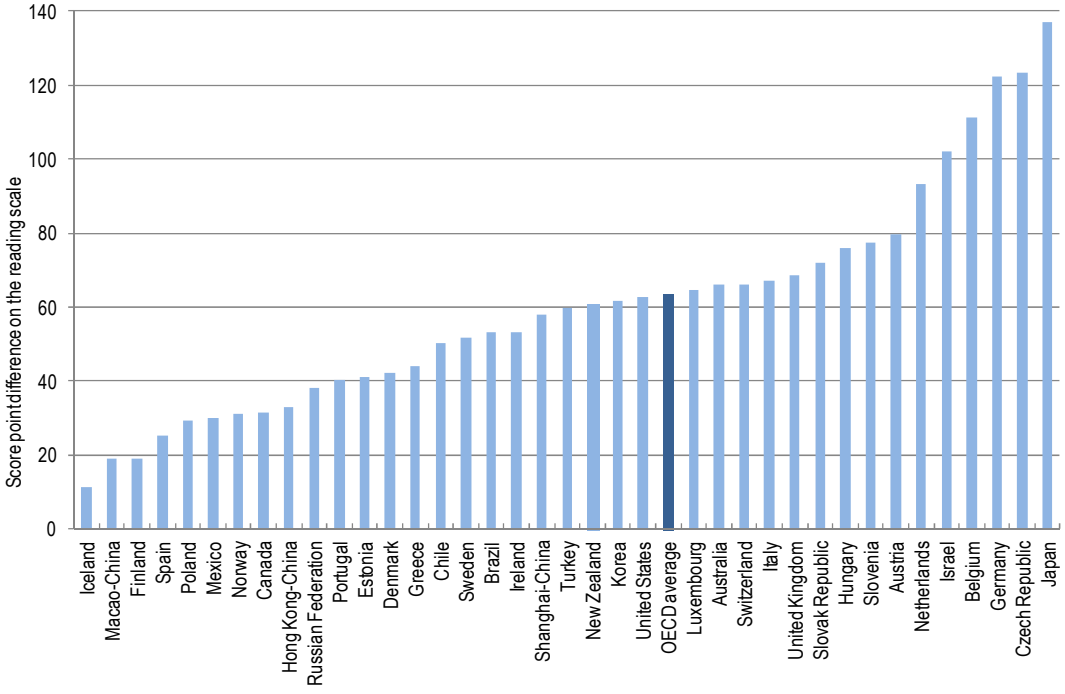
To put these numbers in more concrete terms, consider the hypothetical case of two students in any of these countries with an average family socio-economic background. One student attends an advantaged school, where most of this student's peers come from families that are more affluent[6]. The other student attends a more socio-economically disadvantaged school.[7] The analysis indicates that the first student would be expected to show, on average across the OECD countries, a 32 score point higher reading performance than the second student, and this difference would be expected to exceed 50 score points in several countries.

These figures confirm that disadvantaged schools tend to reinforce students' socio-economic inequalities. This represents a double handicap for disadvantaged students, since schools do not mitigate the negative impact of the students' disadvantaged background and on the contrary amplify its negative effect on their performance. Furthermore, evidence also shows that in countries where schools tend to be more segregated, the impact of the school's socio-economic intake is higher.

The students themselves are a key resource of any school: a disadvantaged student has a better chance of success if he or she is in a school with students who have high expectations and are intellectually engaged (Hanushek and Woessmann, 2006, Ammermüller, 2005).

Figure 3.3. Impact of school's socio-economic status on student achievement

Score point difference associated with a one-unit increase in the school-level PISA index of economic, social and cultural status, PISA 2009



How to read this chart: This chart shows the average impact of school's socio-economic background on performance. In the Netherlands, the score of a student with the average performance in reading would increase 93 points if the school level PISA index of economic, social and cultural status (ESCS) increased one unit. This is an estimation based on the averages; the impact for students with lower or higher socio-economic background may differ. Non OECD member economies are included for comparison.

Source: OECD (2010a), *PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II)*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561120

These findings point to the need to understand the factors that contribute to between-school socio-economic segregation[8] and mitigate their effects – and even to compensate for them; and ensure that all students, whether advantaged or not, are highly engaged and supported.

It is important to highlight that while schools can have a strong influence on students' performance, other external factors make a difference too, including residence, poverty, and health. Schools can have a strong impact on their students, but parents' educational attainment cannot be improved overnight, while the wealth of the average family is heavily influenced by the country's long-term economic development, poverty alleviation measures and other social policies. However, there is evidence that some countries succeed in reducing the impact of personal socio-economic disadvantage on learning outcomes.

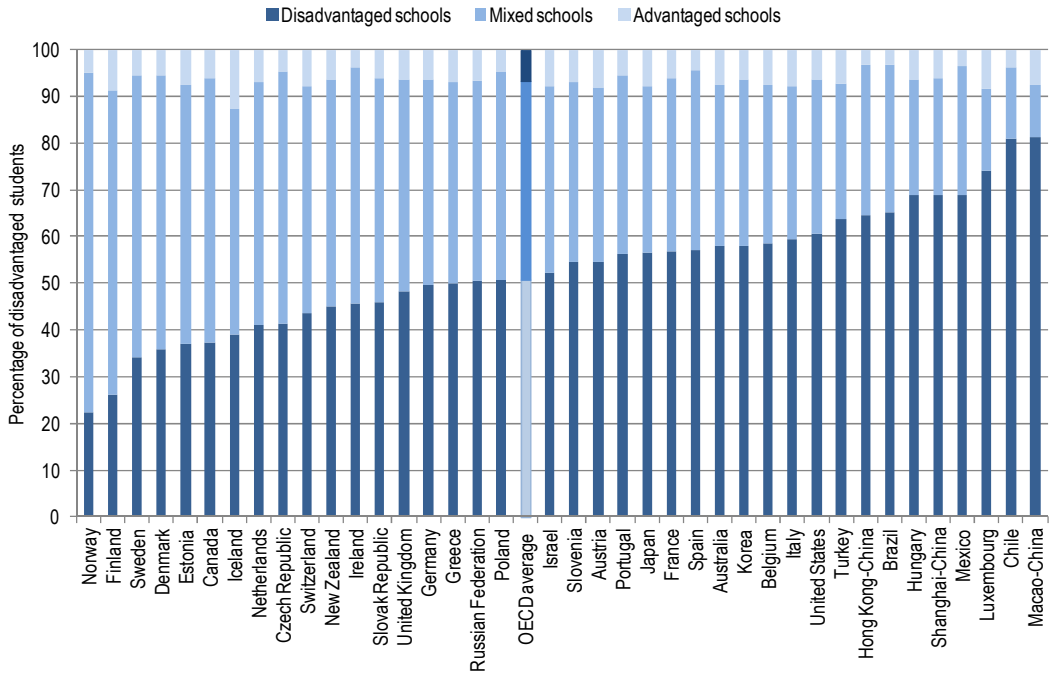
The challenge is not easy: how to help disadvantaged schools to improve so that they can mitigate and even compensate for the impact of students' background? How can they ensure that every student thrives, regardless of his or her socio-economic background? The following sections review the challenges and propose policy recommendations for disadvantaged schools and their students' success.

Understanding the challenges facing disadvantaged schools

Schools can be classified into advantaged, mixed or disadvantaged depending on their average socio-economic student intake relative to the national one. In countries where there are a higher number of mixed schools, which implies lower socio-economic segregation, disadvantaged students are more evenly distributed across advantaged, mixed and disadvantaged schools. In contrast, in countries with a high level of social exclusion, disadvantaged students are overrepresented in disadvantaged schools, as shown in Figure 3.4.

Figure 3.4. Disadvantaged students are overrepresented in disadvantaged schools

Distribution of disadvantaged students in disadvantaged, mixed and advantaged schools



How to read this chart: This chart shows the type of schools that disadvantaged students attend. Schools are classified into advantaged, mixed or disadvantaged depending on the average socio-economic student intake relative to the national one. Students' background is measured by the PISA Index of Economic Social and Cultural Status (ESCS). In Chile, 81% of disadvantaged students attend schools where disadvantaged peers are overrepresented, which suggests a high level of segregation between schools. Non OECD member economies are included for comparison.

Source: OECD (2010a), PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II), PISA, OECD, Paris.

StatLink *http://dx.doi.org/10.1787/888932561139*

Schools with higher proportions of disadvantaged students are at greater odds of suffering from a myriad of social and economic problems that can inhibit their learning: higher levels of unemployment and lower income in their neighbourhoods and students' families, higher proportions of single-parent families, more health problems, higher crime rates and migration of better-qualified youth can all contribute to low educational achievement (Lupton, 2004).

In addition, a higher share of disadvantaged students can have adverse effects on the organisation and processes of schools, resulting in specific educational challenges. These schools can have a charged emotional environment, with a higher proportion of students who

are anxious, angry or vulnerable; and parents who may be less able to provide a stable and comfortable environment for their children. Often, students in disadvantaged schools may also have a wider range of abilities, as their prior attainment can be extremely heterogeneous. In particular the lowest achievers can have extreme learning needs and these can be difficult to meet (Lupton, 2004).

Sometimes schools' ineffectiveness stems less from the students' socio-economic backgrounds, and more from the schools' inadequate response to student needs, insufficient support for staff, or poor management and professional practice. Often disadvantaged schools lack the ability to attract and retain competent staff (Harris and Chapman, 2004; Muijs *et al.*, 2004) and access to useful professional development opportunities (Leithwood, 2010). Suitable systemic support for schools is, in many cases, insufficient, and schools find themselves alone, trapped between demanding learning environments and inadequate support systems. Additionally, as will be analysed below, some system level features may further inhibit the provision of adequate educational responses to students in these schools. Because these factors affect the learning and the teaching that happens in schools, solutions have to be designed for schools *and* for classrooms.

Yet another challenge is the fact that there is no common understanding across countries of which schools are disadvantaged or how to intervene (Box 3.1).

Box 3.1. Difficulties in defining disadvantaged schools across OECD countries

Defining low performing disadvantaged schools can be very complex: disadvantaged schools may share certain socio-economic characteristics and face similar challenges, but each of these schools may be different. There is no common understanding or definition across OECD countries of which schools are disadvantaged and performing at low levels. As each national, and even regional, context is unique, the criteria used are very diverse. An analysis of country approaches to define and support these schools can give an idea of the elements that countries take into account to categorise either disadvantaged or low performing schools:

- student outcomes (grades, qualification levels, gain and growth, improvement)
- physical and human capital (finances, facilities, staff, leadership)
- student intake characteristics (socio-economic, migrant, specific groups, language barriers, special needs)
- schools' context (e.g. violence)
- geographic areas or regions
- historical or traditional issues (such as supporting a specific ethnic group considered as disadvantaged).

Finally, it is important to highlight that not all schools in disadvantaged neighbourhoods or with a disadvantaged student intake are low performing and offer a poor education. Many schools provide high quality education despite being in disadvantaged contexts, and there are many country examples of targeted support strategies that are effective, reviewed in the following sections.[9] Even if schools' socio-economic status in itself is difficult to change, there is evidence that some countries succeed in reducing its impact on learning outcomes: for example, in Finland, Iceland and Norway, differences in the socio-economic background

of schools account for less than 30% of the already small performance differences between schools. In these countries students have similar chances of success regardless of the relative disadvantage of their school.

Similarly, even if children who face challenging economic and social circumstances often struggle to master basic literacy and numeracy skills, a significant proportion of disadvantaged students do perform very well at school (OECD, 2011a). These schools and students provide positive examples of good practice to demonstrate that disadvantages do not necessarily mean low performance. Based on empirical evidence and the analysis of country practices, this chapter presents five policy recommendations that can help disadvantaged schools and their students to succeed.

A strategy for low performing disadvantaged schools to raise their students' achievement

Improving the performance of low performing schools with a relatively disadvantaged student intake addresses both dimensions of equity: inclusion, by ensuring that these schools can supply quality education, and fairness, by ensuring that disadvantaged students are not penalised twice – because of their own disadvantaged background, and because they attend schools that heighten this disadvantage.

Designing strategies to strengthen these schools' capacity to improve is a challenge - but also an opportunity for significant improvement of school systems as a whole. An overview of country practices shows that there are many different types of initiatives for disadvantaged schools that range from intensive targeted support and financial help for these schools to closure.[10] This section brings together the empirical evidence and country practices (presented in the country's national background reports of the OECD review "Overcoming School Failure: Policies that Work") of what has shown to be most effective for disadvantaged schools.

The chapter presents a policy strategy to support improvement in low performing disadvantaged schools with five recommendations that focus on principals, teachers, the learning environment in schools and in classrooms, and the support from parents and communities. They focus on improving the educational experiences of students like Tom and his peers, mentioned earlier, to help them acquire the skills they need for successful completion of their education and move into adult life.

It takes time to implement change, for national and regional education policies to reach schools. Not only is the policy making process long, but schools are complex organisations with specific cultures and composed of many different people; "turning them around" is not easy. It implies designing appropriate strategies and then changing the expectations, beliefs and practices of many diverse individuals as well as changing collective systems, structures and cultures. It needs to start with setting clear goals focusing on quality and equity, which need to be publicised in the education system and with the public to build commitment towards improvement. The specific stages of improvement are difficult to define and may vary according to each school's challenges and means (Stoll and Myers, 1998). Studies on school improvement suggest that three to five years is typically the time necessary to see student achievement improve (Aladjem *et al*., 2010; Borman *et al*., 2003).

However, what is known is that improvement starts with changes in teaching and learning focusing on student success, with other components following as necessary. While

effective classroom learning practices may be the single most important element in getting better student outcomes, these are shaped by leadership, school climate, teacher policy and linkages with parents and communities. School evaluation for improvement and accountability also needs to be taken into consideration (Faubert, 2009). Systematic alignment of policy and practice across these five areas in conjunction with alignment of implementation and evaluation is essential for success. It may not be possible for any country to address all of these issues at the same time or in the same way, but all of them must be considered at some point (OECD, 2010c).

While education policies contribute to the reduction of school performance differences, in many cases, education policies alone are not enough (Lupton, 2004). Other social policies can contribute to mitigate the effects of a student's background on his or her educational experience, and these holistic strategies are usually very effective in reducing school failure (Lyche, 2010).

Recommendation 1. Strengthen and support school leadership

Key findings

School leadership is the starting point for the transformation of low performing disadvantaged schools. But often school leaders are not adequately selected, trained and supported to respond to the needs of these schools and their students. Therefore policies need to focus on preparing and supporting school principals to work in disadvantaged schools by:

- Ensuring that school leadership preparation programmes both strengthen school leaders' general expertise to improve learning and teaching, and also provide specialised knowledge to handle the challenges of disadvantaged schools.
- Reinforcing coaching and mentoring programmes for school leaders, to support school leaders in the search for solutions, and creating networks of schools to achieve durable change in practices and sustainable improvement.
- Developing strategies to attract and retain competent leaders in low performing disadvantaged schools, by providing good working conditions, systemic support and incentives to encourage the appointment of high quality school leaders in these schools.
- Providing systemic support for restructuring and re-culturing schools whenever necessary. This organisational restructuring may require extra support and external intervention and/or additional resources Splitting low performing disadvantaged schools, merging small ones and closing failing ones can be policy options in certain contexts.

Challenge: disadvantaged schools may lack the leadership to respond to their specific challenges

Each disadvantaged school is unique in the circumstances it confronts, the way it is challenged and its capacity for improvement and change. Strategies to improve low performing schools need to be adapted to the setting in which each of them operates. School

leaders are usually the drivers of effective initiatives, and can be supported in this task by highly competent and engaged people, both inside and outside the school.

Low performing disadvantaged schools often lack internal capacity to improve: a common factor for disappointing performance is lack of leadership capacity across the school, (Muijs, 2007). High quality school leadership is a key prerequisite for the improvement of chronically low performing disadvantaged schools (Baker and Cooper, 2005). In some cases, what the school needs in order to embed and sustain school improvement is a culture change, to move towards teachers working together in learning communities (McBeath *et al*., 2005). But not all schools have this capacity and often, the schools that need it the most are those least able to make it happen (Harris and Chapman, 2004). Existing school leaders in these schools need to be supported and/or trained – or to be replaced with new, effective leaders. A combination of external support and internal development is often necessary to generate positive change and improvement.

Evidence: school leadership is key for the improvement of low performing disadvantaged schools

School leaders are the starting point for transformation

Effective school leadership is identified as crucial to student outcomes, second only to the quality of the teacher (Augustine *et al.*, 2009). Principals have to set high expectations for all students and teachers to succeed (Matthews, 2009). School leaders influence student achievement through two important pathways: the support and development of effective teachers and the implementation of effective organisational processes (Leithwood *et al.*, 2004). Pont, Nusche and Moorman (2008) highlight four core responsibilities of school leadership that are particularly applicable to low performing and disadvantaged schools: a) supporting, evaluating and developing teacher quality: b) goal-setting, assessment and accountability: c) strategic financial and human resource management: and d) collaborating with other schools.

Research on reforms in education systems such as Boston (United States), England and Singapore demonstrate that good leadership in schools is essential for fast and substantial changes in practices (Barber and Mourshed, 2007). Emerging evidence from the OECD Innovative Learning Environments project also highlights the key role of leadership in achieving substantial student learning improvement, especially in disadvantaged contexts (OECD, *forthcoming*).

Several major studies of schools in disadvantaged areas in the United Kingdom have looked into successful or improving schools to see what they do well (Day *et al*., 2009). In "exemplary schools", good leadership fosters an effective teaching and learning environment that makes it possible to overcome the problems linked to the disadvantaged context. Low performing disadvantaged schools improve by getting their staff to improve, and by training them according to the needs of the schools (see policy recommendation 3 in this chapter). School leaders who have a good understanding of the social, economic and even political factors which affect their students' lives are better equipped to implement successful strategies (Blair and Bourne, 1998).

School leaders in low performing disadvantaged schools are not always adequately selected, trained and supported

Being a school leader is a complex task, which is even more difficult to undertake in low performing disadvantaged schools. To be effective, they need to be well prepared and supported. When taking up their posts, many school leaders do not feel that they have had the appropriate training for it. As most candidates to school leadership positions have a background as teachers, they are not necessarily prepared as pedagogical leaders, and they may lack the financial and human resources management skills required. In addition, in many countries there is lack of clarity about the school leaders' core tasks and responsibilities. In the case of low performing disadvantaged schools, the situation is further complicated as often, there are not many candidates to become principals, and it may be those with lesser experience and relevant qualifications who take up the post. In the United Kingdom, for example, only 20% of school principals leading disadvantaged schools had been a principal for three years or more.

Policy options to support school leadership in low performing disadvantaged schools

Develop and strengthen school leadership training for low performing disadvantaged schools

Leadership knowledge, skills and dispositions that will lead toward school improvement have to be developed through purpose-designed leadership preparation programmes. There is consensus among practitioners, researchers and policy makers that high quality school leader training contributes to more effective leadership, and therefore to improvement in teaching and learning (Pont, Nusche and Moorman, 2008; Davis *et al.*, 2005; Darling-Hammond *et al.*, 2007). Many countries have implemented or are implementing advanced training for future and/or in-service school leaders. Box 3.2 summarises key components of effective school leadership preparation programmes.

Box 3.2. Components of effective school leadership training programmes

The OECD *Improving School Leadership* review looked into several school leader preparation programmes across OECD countries. It found that the more effective programmes are the ones that:

- prepare and develop school leaders focusing on instructional leadership and on the broader roles and responsibilities of leaders, the purposes of schooling, and the operation of core school technologies to achieve intended outcomes.
- are designed to produce leaders who work with teachers to build student-centred schools with capacity for high performance and continuous learning and improvement.
- take a system-wide perspective to align with the broader goals and processes of the system for school improvement, student performance, and enhanced efficiency and effectiveness.

Source: Pont B., D. Nusche and D. Hopkins (2008), *Improving School Leadership Vol. 2: Case Studies on System Leadership*, OECD, Paris.

In addition, to develop capacity to lead low performing disadvantaged schools, school leadership training programmes should also offer specialised and specific knowledge and skills to understand these schools' specific circumstances, and how to respond to them (Day

et al., 2009). These programmes need to ensure that school leaders are prepared to focus on issues that are more characteristic of disadvantaged schools such as: student behaviour, motivation and engagement; teaching and learning for disadvantaged and/or low performing students; improvement of the physical environment of the school; and cultures of care and achievement (Day *et al*., 2009). In the same way, they also need to be prepared to successfully engage parents and the wider community as active allies for school improvement (see also policy point 5 in this chapter).

Provide coaching, mentoring and networks for school leaders

School leaders – especially novice ones – in low performing disadvantaged schools are very likely to need extra support. Coaching programmes consist in pairing novice and experienced school leaders, in order to support the inexperienced school leaders in the search for strategies to solve problems. This strategy has had positive results in Shanghai (China) and in England (OECD, 2011b). With coaches, leaders can gain new skills and find how to respond to their own school challenges, rather than being prescribed "ready-made" solutions, and take different but appropriate approaches in their jobs (Gorham, Finn-Stevenson and Lapin, 2008; Bush and Jackson, 2002). Coaching also increases their well-being as they feel more supported, which is particularly important in challenging environments (Stichter *et al.*, 2006). Ideally coaches should have experience and demonstrated success in schools with the same characteristics as those in which the new school leader is operating (Morgan and Hawkins, 2004). This support then can be removed progressively as the novice leader's competences increase. In the case of very challenging school environments, support for school leaders may need to be sustained over time.

In addition, schools cannot achieve transformation by acting alone: networks can provide the impetus for improvement (Caldwell, 2010). Different forms of networks can support and contribute to the improvement of schools in challenging circumstances (Hadfield and Jopling, 2006). Networking appears as a positive and non-punitive way to achieve durable change in practices and therefore, sustainable improvement and culture change. It allows the dissemination of good practices across the systems through shared purpose and pooled resources, and the consolidation of a professional identity (Morgan and Hawkins, 2004).

Networks can take different forms, from relatively formal and mandated groups (such as Education Action Zones in the United Kingdom, Reseaux Ambition Réussite in France), more voluntary networks of school leaders or the promotion of systems leaders. The different words used to describe these groupings – networks, clusters, partnerships – reflect the variety and dynamism of collaboration, but the main message is that schools facing exceptionally challenging circumstances can learn very directly from one another (McBeath *et al*., 2005). However, networks and other collaborative approaches with poor communication, lack of commitment from leaders or irrelevant focus are unlikely to have a positive impact on student achievement. In order to achieve the desired results, collaborative work needs to be aligned with external support and interventions. Box 3.3 introduces examples of school leadership coaching and networking.

Box 3.3. Coaching and networking in Ontario and in the United Kingdom

Ontario: strengthening and distributing school leadership for long term change. In 2003, the Ontario Ministry of Education launched its secondary school reform, Student Success/Learning to 18 Strategy, to address student disengagement from secondary school programmes. It focuses on providing engaging, high quality learning opportunities for all students and support for students at risk of not completing secondary education. One of the main pillars of this reform is to promote strong, focused leadership in schools and district school boards, to change school culture in order to achieve long term systemic improvement. From 2003–2005, the strategy built leadership capacity for secondary school reform at the district-school board level by creating a new senior leadership role, the Student Success Leader. At the level of the school, a new role was also created: the Student Success Teacher, to provide support to students who were at risk of dropping out of school. In addition, secondary schools have now established Student Success Teams, consisting of school leaders, Student Success Teachers and staff, which not only track and address the needs of students who are disengaged but also work to establish quality learning experiences for all students.

United Kingdom: networking among schools. The UK government is increasingly placing emphasis on the need for schools to work together in order to improve. Several networking initiatives exist, for different types of schools: Excellence in Cities, the Leadership Initiative Grant, networked learning communities and school federations. These initiatives have stimulated a variety of cooperative arrangements, from groups of schools that have volunteered to work together, to groups that have been induced to do so by incentives, to others that have been subject to direct external pressure to collaborate.

Sources: Muijs, D. (2007), "Improving Failing Schools: Towards a Research Based Mode", paper presented at the 20th Annual World International Congress for Effectiveness and Improvement; Fournier, G. and D. Mildon (forthcoming), *OECD Country Background Report: Overcoming School Failure (Equity) In Canada,* Council of Ministers of Education, Canada. www.oecd.org/edu/equity; OECD (2011b), Lessons from PISA for the United States, Strong Performers and Successful Reformers in Education, OECD, Paris.

Develop strategies to attract and retain competent leaders in low performing disadvantaged schools

Having good working conditions and systemic support is key to attracting and retaining competent leaders in disadvantaged schools. Countries, in particular those with difficulties in attracting leaders in disadvantaged schools, should aim to carefully link salaries to school level factors and to make balanced use of performance-related rewards and incentives.

It is important to ensure that principals perceive the process as fair (Pont, Nusche and Moorman, 2008). If performance-related pay is introduced, it is important to develop reliable indicators and clear assessment criteria, to prepare and train evaluators and to ensure that assessment procedures take into account the context in which principals are working. In Korea for example, becoming a school leader in a low performing disadvantaged school is well regarded by the profession, and well rewarded financially. Often, leaders for these schools are recognised as among the best performers.

Provide systemic support to transform low performing disadvantaged schools

Transforming low performing disadvantaged schools often requires both the restructuring and re-culturing of schools. The commitment to sustained enhanced learning often has to be accompanied by deep organisational restructuring to improve what is not

working correctly in the school. This restructuring can sometimes require extra support and external intervention and/or additional resources (Black, 2007). Evidence shows that successful strategies should take into account the following key elements (also see Box 3.4).

- **Context-specific strategies**. Tailor-made improvement strategies have to be designed for each school or group of schools to fit their specific circumstances (Harris and Chapman, 2004, MacBeath *et al.*, 2005). It is preferable for these strategies to be developed from within the school. Schools benefit more from systemic support when it builds on the capacity of existing staff, who then own the improvement process. In the Netherlands for example, persistently low performing schools are identified by the inspectorate. After defining an action plan, the school and the inspectorate work as a team to implement it (Akkerman, *et al.*, 2011).

- **Resources**. While general increases in school funding do not necessarily improve student outcomes (Woessman, 2008; Faubert, 2012), some targeted increases in specific school inputs can improve student outcomes (Jacob and Ludwig, 2008). On a case-by-case basis, core funding can be increased on a short term basis, and incentives can also be provided for schools based on student improvement and. Systemic support can also take the shape of extra resources and more teacher time, to have time to participate actively in networks and for common planning, and guidance on improving expertise, among others (Reynolds *et al.*, 2002).

- **Formal common planning time at school**. The reorganisation of the timetable to allow block release for professional learning teams, and for the collaborative planning of strategies for improvement, can lead to a strong alignment between staff in the school and to tangible results.

- **Merit recognition for schools**. It is essential that disadvantaged schools that improve be rewarded for their success (and not stigmatised for contextual factors on which they have no influence). External support and being part of a national strategy for improvement with tangible examples of success can give the schools confidence to improve. Schools that have overcome obstacles and improved are able to contribute their knowledge and practice of school improvement (MacBeath *et al.*, 2005). Sometimes, disadvantaged schools embed expertise and practices that are exemplary and from which the whole system could benefit. For example, with challenging classroom behaviour becoming a priority in many countries, there is a reservoir of expertise in schools in exceptionally challenging circumstances from which other schools could benefit.

- **In some cases, firm action for persistently low performing schools.** Some system leaders wonder what to do with persistently low performing schools. In many countries, efforts to improve them have consistently failed to generate significant improvement. Splitting low performing disadvantaged schools, merging small ones and closing recurrently failing ones can be relevant policy options in certain contexts. Such actions can facilitate starting again from scratch, including changing the school's climate and culture (*e.g.* establishing new practices, length of day, student recruitment) and improving relationships with teacher unions, the school board, and central authorities. Closure is neither a popular nor a much used practice in OECD countries. While this initiative should be considered only in extreme circumstances, countries' main priority should be to avoid situations where students receive consistently low quality education. It is not fair for any student to lose the opportunity of having good schooling.

Box 3.4. Systemic support for sustainable improvement

In **Québec,** the Ministry of Education's intervention "Agir autrement (Act differently)" aims at fostering large scale transformation in the province's most disadvantaged schools, to improve both student success and equity. The ministry gives these schools (189 in the year 2007-2008) access to a large database of effective practices for intervention so they can develop their expertise. School boards, through resources and especially through coordination, support the school leadership team in the implementation of practices that are adapted to their students' socio-economic characteristics

In **Ontario**, the Focused Intervention Program (OFIP, since 2006/07) provides targeted support to primary schools that have "experienced particular difficulties in achieving continuous improvement", measured through results on provincial assessments of reading, writing, and mathematics (grades 3 and 6). OFIP funds are used for professional development, additional student and professional learning resources, literacy and numeracy coaches, and teacher release time for collaboration and additional training. In 2006/07, schools qualified for OFIP support if less than 34% of students reached provincial standard in grade 3 reading. In addition, since 2009/10, resources from the OFIP programme were extended to over 1100 schools in which less than 75% of students met provincial standard in the grades 3 and 6 assessments (Schools in the Middle [SIM]). OFIP and SIM aim at pooling and enhancing professional resources within a school so that under-achievement becomes a shared issue. It is tackled, for example, by a school improvement team supported by literacy and numeracy coaches. Schools selected for participation in OFIP tend to be those serving disadvantaged communities, with a relatively high percentage of students with special education needs or an above-average range of educational challenges. From 2002/03 to 2010/11, the number of schools with fewer than 34% of students achieving at provincial standard in grade 3 reading was reduced by two thirds (from 19% to 6%), showing significant success in reducing the number of primary schools in which students fail.

In **Spain,** from 2011, contracts for low performing schools (*Contratos-programa con Centros Educativos para el Incremento del Éxito Escolar)* can be signed between the regional departments of education and schools that wish to improve. They commit themselves to increasing students' school and personal success through an improvement project. In turn, education authorities commit themselves to providing the necessary resources.

In **Ireland,** the DEIS (*Delivering Equality of opportunity In Schools,* launched in 2005), focuses on addressing the needs of schools with a concentrated level of disadvantage. It has developed a standardised system for identifying levels of disadvantage in schools and provides a range of support (670 primary schools and 195 post-primary schools), including: reduced pupil teacher ratios (for urban primary schools in communities with the highest concentrations of disadvantage); allocation of administrative principals; additional allocation based on level of disadvantage; additional financial allocation for school books; access to numeracy/literacy support and programmes at primary level; access to Home School Community Liaison services; access to School Completion Programme; enhanced guidance and counselling provision at post-primary level; enhanced planning support; access to the Junior Certificate Schools Programme and the Leaving Cert Applied; and provision for school library and librarian support for the post primary schools with highest concentrations of disadvantage. The last report on Retention in post primary schools shows that the average Leaving Certificate retention rate in DEIS schools increased from 68.2% to 73.2% for students who entered post primary level from 2001 to 2004.

Sources: *OECD Country Background Report: Overcoming School Failure (Equity) In Canada,* Council of Ministers of Education, Canada. ; IFIIE (Institute for Teacher Training and Educational Research and Innovation) (2011), *Overcoming School Failure: Policies that Work, Spanish National Report*, Ministerio de Educacion, Spain www.oecd.org/edu/equity; Irish Ministry of Education and Skills (forthcoming), *Overcoming School Failure: Policies that Work, National Report Ireland.* www.oecd.org/edu/equity

Recommendation 2. Stimulate a supportive school climate and environment for learning

Key findings

Disadvantaged schools are at greater risk of facing student behaviour problems and therefore deteriorated learning climates. Learning, however, requires an orderly and cooperative environment in the school to influence students' behaviour and engagement in learning. Policies need to ensure that disadvantaged schools are able to create an adequate environment for learning:

- Prioritising the development of positive classroom climates by enhancing positive teacher-student and peer relationships and avoiding an emphasis on discipline alone.
- Promoting the use of data information systems as a school diagnosis tool to identify struggling students and factors of learning disruptions.
- Ensuring that disadvantaged schools provide their students with adequate and timely support such as counselling, mentoring or smoothing transitions through the different levels of education.
- Considering alternative organisation of instruction time over the day, the week or the year. Creating, in particular cases and under certain conditions, smaller classrooms and smaller schools to enable more effective teaching and learning of disadvantaged students.

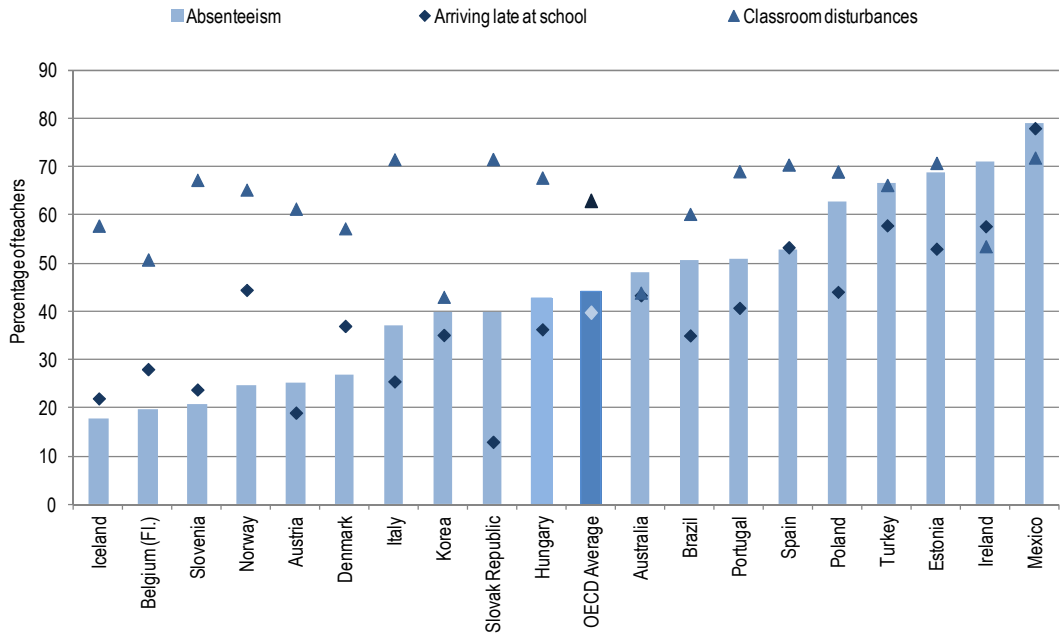
Challenge: disadvantaged schools are at greater risk of dysfunctional school climates

The level of student disadvantage has been linked to children's behaviour in school: low socio-economic status increases the chance that children will demonstrate behavioural problems (Webster-Stratton and Reid, 2001; Thomas *et al.*, 2008)[11]. Therefore, disadvantaged schools are at greater risk of facing significant levels of disruptive student behaviour.

Classrooms and schools that contain a high proportion of disruptive, aggressive students significantly undermine classroom quality, as such behaviour reinforces aggressive reactions from other students, escalating behaviour problems in the school (Barth *et al.*, 2004, Thomas *et al.*, 2008). Some schools, and in particular disadvantaged schools, spend a considerable amount of time having to deal with disciplinary issues, allowing teachers less time to devote to teaching and learning (Murphy, 2010). Figure 3.4 shows the extent to which different student factors hinder instruction in schools in general.

Figure 3.4. How student-related school climate factors affect learning

Percentage of teachers of lower secondary education whose school principal considered the following student behaviours hinder instruction a lot or to some extent in their school (TALIS 2007-08)



How to read this chart: This chart shows the extent to which school principals consider that absenteeism, arriving late and classroom disturbance affect instruction in their school. Countries are ranked in ascending order by the impact of absenteeism. As an example, in Korea the student-related school climate factors have a small impact on instruction, while in Mexico school principals report that these factors create difficulties for many teachers. Non OECD member economies are included for comparison.

Source: OECD (2009), *Creating Effective Teaching and Learning Environments: First Results from TALIS*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561158

Evidence: schools' climate and relationships strongly influence student engagement

Engaged students are more successful in school by many measures: students who concentrate on learning activities, avoid disruptive behaviours and adhere to the rules of the school generally get better grades and perform better on standardised tests (Wang and Holcombe, 2010). In addition and more importantly, these students are eager to engage in "authentic learning" pedagogic experiences to learn more deeply and perform better on complex tasks (Dumont, Istance and Benavides, 2010). Disruptive and disengaged students are more likely than well-behaved students to repeat a year, require special education services and have serious behavioural problems in later adolescence (Thomas *et al.*, 2008). The problem of disengagement is particularly acute during secondary education (OECD, 2011c).

Positive school environments and climate are key to learning

There is clear evidence that the extremes of school environment – such as excessive noise or extreme heat – have negative effects on students and their learning, and that improving these elements can have significant benefits (Higgins *et al.*, 2005). Unmaintained or abandoned physical spaces give students a message of a lack of ownership and, in a sense, a lack of morale; and students tend to act on this image of the school (Roeser, Urdan and

Stephens, 2009; Eccles and Roeser, 2011). Once the school's physical environment achieves minimum standards, the evidence is less clear (Higgins *et al.*, 2005). However, the linkages between concerted environmental change and effective engagement with students, teachers, and other users of school buildings and facilities are worth highlighting.

In addition to the physical environment of the school, features of both its organisational context and its culture have an impact on students' motivation to learn and achievement (Roeser, Urdan and Stephens, 2009). Two factors are identified as important in determining a school's climate and its learning opportunities: encouragement to engage and lack of disruption (HayMcBer, 2000).

Learning requires an orderly and cooperative environment in the school, both in and outside the classroom (MacIver and MacIver, 2009; Eccles and Roeser, 2011). Results from PISA 2009 suggest that schools and countries where students work in a climate characterised by expectations of high performance, readiness to invest effort and good teacher-student relationships tend to achieve better results (OECD, 2010d). Such a learning environment encourages regular attendance and other positive behaviours.

Research has also indicated that a sense of connectedness to teachers and student peers in school is associated with multiple indicators of academic motivation and engagement, particularly emotional engagement (Wang and Holcombe, 2010). Students, especially disadvantaged students, learn more and have fewer disciplinary problems when they feel that their teachers are dedicated to their success. Perceived support from teachers may also reduce the attainment gap between minority and non-minority students in some cases (Baysu and Phalet, forthcoming).

The organisation of learning and its impact on disadvantaged students

Cognitive skills research has shown that gaps in reading and mathematics skills among students from different socio-economic backgrounds grow primarily during summer vacations (Downey, Von Hippel and Broh, 2004). The cumulative effect of summer learning differences is a primary cause of widening achievement gaps between disadvantaged and more advantaged students (Smith and Brewer, 2007). This is because the quality of children's non-school environments varies widely, and typically, disadvantaged children have poorer learning opportunities outside school. Therefore, structuring the learning time differently, through after-school programmes, may be justified for disadvantaged students and/or schools (Black *et al.*, 2008).

Class and school size

Class size is often a controversial topic. Teachers and parents typically consider that smaller classes are beneficial because they allow teachers to focus more on the needs of individual students and allow for a wider range of teaching practices. Indeed, smaller classes may be beneficial for disadvantaged and minority students, especially in the early years (Krueger, 2002), and some evidence signals that smaller class sizes may allow more positive teacher-student relationships.

However, the evidence raises important warnings. The benefits are not automatic: a review of European education systems shows that in most countries, on average, there seems to be no effect of class size on the cognitive skills acquired by students (Wossmann and

Schütz, 2006). Improvements seem to be linked to the instructional practices implemented in the smaller classrooms rather than the classroom size itself (Faubert, 2012).

As for school size, evidence suggests that, on average, variations in school size make quite small differences to student success (Bloom *et al.*, 2010[12]; Hattie, 2009; Faubert, 2012). Nevertheless, as with class size, smaller schools may have a positive impact on disadvantaged students (Leithwood and Jantzi, 2009). The higher the proportion of minority students, the smaller the optimal school size (Faubert, 2012). Smaller schools, in certain settings, may foster student engagement and sense of belonging more than larger schools (Crosnoe, Kirkpatrick and Elder, 2004, Roeser, Urdan and Stephens, 2009).

Changes in school size should be accompanied by reforms in the school and classroom, to allow the specific use of "small school" instruction practices. Otherwise, the mere reduction of school or class size does not enhance the total time per student, as it does not imply that the teachers will necessarily adopt more effective learning strategies. It is both the frequency and quality of student/student and student/teacher interactions in small schools and classrooms that matters. Moving from one size to another requires a shift in what it means to be an effective teacher (Faubert, 2012).

Policy options to develop positive school climates and environment for learning

Prioritise the development of safe and positive environments adequate for learning

Policy makers should ensure that disadvantaged schools work on creating positive school and classroom climates, and on eliminating the distractions to teaching and learning. A positive climate can have a powerful and significant impact on student achievement and well-being in disadvantaged schools (Garcia Palomer and Paredes, 2010; Riley and Coleman, 2011). There are different options to support positive environments, as presented below and in Box 3.5:

- Making student well-being a high priority and developing programmes that contribute to positive peer relationships at school, as they foster academic performance, well-being and mental health (an effect that extends to adulthood). An increased sense of community in a school can reduce disruptive behaviour and improve students' confidence and self-esteem (Jenson *et al.*, 2004). School districts in Manitoba have a number of programmes that train students to be peer mentors, positive behaviour models, and peer mediators for minor conflicts in their schools.

- Prioritising strategies to enhance teacher-student relationships, as they lead to better learning and teacher environments and therefore, both more teacher satisfaction and better student outcomes (Gray, 2000; Crosnoe, Kirkpatrick and Elder, 2004). When students feel recognised and do not fear being embarrassed or compared to peers, they are more likely to identify positively with school, use cognitive strategies that contribute to academic success, and feel confident in their ability to learn. Specific school measures can include using positive feedback and reinforcement (Harrop and Swinson, 2007) and individualised attention (Levin, 2008). This is especially important for students who receive little or no support at home.

- Considering the role of discipline: while the reassertion of discipline may help to deal with low-level class disruption and minor kinds of misbehaviour, more serious problems require a sustained and in-depth analysis (Gray, 2000). Policy makers and schools have to be cautious in promoting authoritarian discipline alone to address student misbehaviour,[13] as this can worsen behavioural issues by adding to the cycle of negativity (Wickham, 2010). Students who are continually punished and forced to experience failure are at higher risk of disengagement, disruptive behaviour and dropping out (Jenson *et al.*, 2004). Students whose teachers use positive management practices show less behaviour problems than students experiencing more punitive teacher behaviour (Webster-Stratton and Reid, 2001, Thomas *et al.*, 2008).

- Designing anti-violence curricula for disadvantaged schools, which may have a positive effect on core competencies such as self-control and decision-making skills and on behavioural problems (Lyche, 2010). In some cases, schools can assess or provide alternative options for the most troublesome students, in preference on-site, to ensure the continuity of their learning experience.

Box 3.5. Practices to improve school climates in France and Spain

In **France,** the ECLAIR programme (Écoles, collèges et lycées pour l'ambition et la réussite) was launched in September 2010 to improve the climate in schools with very high levels of student disruptive behaviour and violence. Its objectives are twofold: to ensure a better learning environment for all students, and to retain and motivate teachers and other school staff. It is based on the alignment of educational needs and pedagogic resources, more (and more adequate) human resources (and more freedom for the school leader in terms of recruitment) as well as specific measures to increase school safety. After one year in the 105 schools with the highest level of disruption, it was spread to 324 lower secondary schools and 1 911 primary schools in September 2011.

In **Spain,** a national State Observatory of School Climate was created to promote research on mechanisms to achieve an appropriate study and work climate in schools. The observatory draws on educational projects that foster a culture of non-violence and learning. It promotes the exchange of experiences and of good practices among practitioners and academics, through conferences and websites.

Sources: Moisan, C. (2011), « Comment en finir avec l'échec scolaire: les mesures efficaces », Projet de rapport national de base de la France. ; IFIIE (Institute for Teacher Training and Educational Research and Innovation) (2011), *Overcoming School Failure: Policies that Work, Spanish National Report*, Ministerio de Educacion, Spain.
www.oecd.org/edu/equity

Promote and use data to identify at risk students – and intervene early

High absenteeism, behavioural problems and course failure (MacIver, 2009) are strong predictors of both student disengagement and school failure, and they can be used to identify students very early on (Kieffer, Marinell and Stephenson, 2011). The creation of a positive learning environment needs to be backed up by precise diagnosis, reliable information systems and accurate data. School leaders can use this data to understand what the obstacles are to a positive learning environment, and then to inform strategic and day-to-day decision making (Faubert, 2012). To this end, it is important that policy makers foster the development and use of data for and by disadvantaged schools:

- Schools should have both formal national level data (such as standardised tests) and school-based data (*e.g.*, report cards, teacher reports of annual progress, school records of behaviour, attendance, etc.).[14]

- Schools need strategies for the analysis and use of this data for school and classroom decision-making. This data can allow schools to establish effective prevention and learning environments that promote engagement and academic achievement.

- The data should be used to support further learning, and not to deflect students onto tracks with lower (or different) expectations. The same should apply at school level – using data for support, not for sanctions.

It is important that the data reflects the contribution that the individual schools make, rather than the different socio-economic conditions under which teachers operate. For example value-added modelling allows data users to separate the contribution of schools and teachers to student performance from contextual factors that are outside the control of classrooms (OECD, 2008a). At the school level, the subjects, grades and groups of students can be identified to highlight where the school is adding most value, and where improvement is needed.

Box 3.6. The use of data for school and student improvement in the Netherlands

An important source for research and monitoring is the Personal Identification Number (PGN), which has been issued to every child in the country over the age of 3½. Commonly referred to as the education number, it is the same as the tax and social insurance number. Schools pass on the PGN together with certain other data on pupils to other schools, as the child progresses through education. These data are increasingly used for purposes such as monitoring pupils' school careers, school attendance or dropout.

The PGN is very useful in the action plan against dropout, because it offers complete and reliable figures on rates nationally, regionally and at municipal and district levels. All schools in secondary education are expected to register absenteeism, disengagement and dropout, and a monthly report is available to municipalities and schools to allow them to give priority to those at risk. Also, these data are linked to socio-economic data (including demographics, native Dutch citizens, ethnic minorities, unemployment, people entitled to benefits, etc.) by region, city and district, which provides a wealth of information for implementing and adjusting policy. This monitoring of results enables the authorities to assess what works and what doesn't, and therefore to disseminate good practices.

Source: Akkerman, Y., *et al.* (2011), *Overcoming School Failure: Policies that Work, Background Report for the Netherlands,* Ministry of Education, Culture and Science, Den Haag. www.oecd.org/edu/equity

However, there are a number of challenges to data use in schools, such as teacher attitudes, the possibility of having a negative impact on students, data saturation and low teacher capacity to use data effectively (Herman *et al.*, 2008; Lachat and Smith, 2005). Public data can facilitate parents' and students' informed decision making; but under certain circumstances it can be detrimental to school, staff and student morale and expectations. Box 3.6 summarises a successful initiative in the Netherlands.

Provide disadvantaged schools with a continuum of support for struggling students

Identifying what are the disruptions to learning in schools and which students are struggling is only part of the strategy: providing adequate and timely support is essential to enable these students not only to stay at school but to get the most of their schooling years. Learning environments that offer strong instructional and emotional support to at-risk students help improve both achievement and teacher-student relationships (Hamre and Pianta, 2005)[15] . A warm and supportive environment that lets students know that help is available is especially important for disadvantaged students (Hopkins and Reynolds, 2001). In Sweden for example, each student has the right to be supported, and school authorities have the responsibility to give all students the chance to achieve their goals.[16] Evidence shows different approaches that can support students in disadvantaged schools:

- **Coaching and mentoring:** Mentoring and coaching opens a path towards building student confidence and raising their expectations about schooling. This can be done by promoting the development of student-adult relationships (Mass Insights, 2007) and by providing concentrated time with teachers (Levin, 2008). Most children who do not want to go to school also dislike their schools and their teacher(s), and unsurprisingly fail at school (Hattie, 2009; Faubert, 2012).

- **Counselling** can help students navigate through the different educational pathways and options and maintain their expectations and commitment. It plays an essential role when used in early stages and can compensate for the lack of early educational opportunities (Tough, 2006; Heckman, 2008). In Québec, guidance and counselling are available even in primary education. In Austria, a country where vocational education and training is prominent, career guidance is organised according to a three-level model: career education lessons are provided by careers teachers; individual advice is provided by student advisors; and both of these are supplemented by a school psychology service that can offer specialised assistance. Career education lessons are carried out by the careers teachers based on a curriculum and standards, with 32 hours per year in the 7th and 8th grades (See point 4 for more information on counselling and career guidance in upper secondary) (Steiner and the Styrian Association for Education and Economics, 2011).

- **Specific measures to support students in their transition to secondary schools:** As students move from primary to secondary schools, they have to leave their self-contained classrooms to be taught by many different teachers, at a point of their lives already challenged by adolescence. Smoothing the transition into secondary can prevent students from falling behind and potentially dropping out (OECD, 2011c). It can also increase their engagement with learning and sense of belonging to school (Longaretti, 2006).

Examples of how some OECD countries are implementing measures to further support struggling students are presented in Box 3.7.

Box 3.7. Examples of student support practices in Ireland, France and the Netherlands

Ireland: The school completion programme (SCP) specifically targets over 36,000 young people, in 464 primary and 227 secondary schools. It aims to prevent students from falling behind and dropping out, at both primary and secondary school levels. It targets individual young people who are most at risk of dropping out. Additionally, some strategies may include a wider group (*e.g.* in the case of sporting and leisure activities) or the entire school population, to avoid further stigmatisation.

This programme includes different activities to support students depending on the particular circumstances of each school and needs of its students. Activities may include: breakfast clubs/ after-school support/ homework clubs; programmes to ease the transition between primary and secondary schools; out-of-school programmes; holiday programmes; mentoring programmes; learning support programmes; social and personal development programmes; and therapeutic support.

France: In 2008 personalised support measures have been made available to all primary and secondary school students. In addition, France has a programme (les Dispositifs Relais) which aims to reintegrate disaffected students at lower secondary level into either general or vocational education, through a specifically designed pathway (lasting for from a few weeks to one year). This programme is available in 450 schools, and caters for about 8 800 students per year. Of the students who have attended relais classes, 88% integrated into mainstream schools or an apprenticeship programme. This programme is complemented by two other policies: the Schools of Educational Reinsertion (ERS), for very disruptive lower secondary students, have a specific emphasis on respect for social and educational rules; while Excellence Boarding Schools (IE) offer favourable schooling conditions to students who lack them in their home environment.

The Netherlands: Extended schools include other services for children, such as childcare providers, health and welfare services, and sports and cultural institutions. These schools mostly serve disadvantaged students. The purpose of this cooperation is to promote children's development by offering them help where necessary with problems at school or in their home setting, as well as by offering additional activities (*e.g.*, culture, sport) with which they normally have little contact; and in some cases, additional instruction. The concept of the community school comes from an initiative by local stakeholders such as municipalities, school boards and welfare services.

Sources: Irish Ministry of Education and Skills (forthcoming), *Overcoming School Failure: Policies that Work, National Report Ireland.* ; Moisan, C. (2011), « Comment en finir avec l'échec scolaire: les mesures efficaces », Projet de rapport national de base de la France. ; Akkerman, Y., *et al.* (2011), *Overcoming School Failure: Policies that Work, Background Report for the Netherlands,* Ministry of Education, Culture and Science, Den Haag. www.oecd.org/edu/equity

Explore different and additional ways of organising the learning time in the school

The organisation of learning time through the year can be reconfigured to cater for the fact that disadvantaged children may have learning gaps during holidays and from less educationally supportive home learning environments in general. Evidence has shown that more hours of instruction seem to increase disadvantaged students' achievement in science (Muskens, 2009; OECD, 2011a). The availability of additional time in school for disadvantaged students through extra academic and social activities can have positive effects on academic performance and motivation, especially if the students are engaged in these activities (Lauer *et al.*, 2006). For students who do not have a supportive environment at home to prepare for the next school day, it is crucial that school offers facilities and support staff.

Different learning time options can include the organisation of after-school and holiday programmes, study support or breakfast clubs (Mahoney, Lord and Carryl, 2005; MacBeath *et al.*, 2005). However, it seems that disadvantaged children are less likely to participate in these activities, for several reasons including costs, access, and limited knowledge on how to participate (Horgan, 2009). Solutions need to be designed to ensure that disadvantaged and/or low performing children can have access to them and find them appealing.

In some cases, schools can also consider organising learning time differently, changing the number of hours per day and/or days per week. Some promising strategies in more than 30 systems are analysed by the OECD Innovative Learning Environment project (OECD, forthcoming). In Spain for example, since 2006, some schools can offer students more instruction time, and/or modify the learning time to better serve their students (IFIIE, 2011). In Greece all primary schools are gradually becoming all-day schools. In those schools children may arrive as early as 7:00 and leave as late as 16:00, during which they can benefit from extra study support (individual and group). The curriculum has been enriched with creative activities of various kinds (foreign language classes, sports etc). The duration of the school year has been also slightly extended (Greek Ministry of Education, 2011).

Combine smaller classrooms and smaller schools with learning effective practices

Some countries have reduced class sizes in order to better respond to students' learning needs. But as stated above, reducing class size needs to be accompanied by better classroom practices (Bascia *et al.*, 2008; Leithwood *et al.*, 2004) and student working learning conditions (Hanushek, 2002) to result in higher academic achievement.

A smaller school size can spur positive outcomes for disadvantaged students, when it offers an adequate environment to implement "small school" instruction practices. What is important is that schools provide increased opportunities for students to learn, more possibilities for student-student and student-teacher interactions, and a better school climate. The optimal range seems to be somewhere between 250-900 students, depending on the school's demographic context (Faubert, 2012).

The improved learning environments made possible by smaller schools and smaller classes include better student-teacher relationships and more use of individual instructional approaches. These rely on the frequency and quality of interactions: individualised instruction, regular formative assessment, better use of space, different grouping strategies and activities. Different options can include keeping the same set of students for several years, extended time with the same teacher or group of teachers ("looping"), and interdisciplinary teaching.

Recommendation 3. Attract, support and retain high quality teachers

Key findings

Disadvantaged schools are not always staffed with effective teachers. The large effect of teachers on student performance suggests that countries should develop coherent policies to recruit, develop, support and retain quality teachers, especially in low performing disadvantaged schools:

- Align teacher education with disadvantaged schools' needs, to ensuring that teachers receive the skills and knowledge they need for working in these schools.
- Provide mentoring for novice teachers working in these schools: well structured programmes may improve teacher effectiveness and increase retention in disadvantaged schools.
- Provide supportive working conditions to retain effective teachers in disadvantaged schools. Teachers are more likely to stay in those schools where they can work effectively and see the results of their effort. Without these, teachers may feel ineffective and may move schools or quit teaching altogether.
- Design adequate financial and career incentives to attract and retain high quality teachers in disadvantaged schools.

Challenge: high quality teachers do not always reach disadvantaged schools

Researchers and policy makers agree that teachers play an important role in student achievement and that, of any school-based practitioner, teachers have the greatest effect on student performance (Santiago, 2002; Schacter and Thum, 2004; and Eide, Goldhaber and Brewer, 2004). Having competent teachers in disadvantaged schools is vital for their success.

However, research into teacher preferences for schools found that the least favoured are schools in rural and remote settings, together with schools with higher proportions of disadvantaged children and children from ethnic and minority language backgrounds (OECD, 2005). Schools in these settings are more likely to have staff shortages (Ingvarson and Rowe, 2007), and their students tend to find themselves in classes with the least experienced and least qualified teachers (OECD, 2005).

Table 3.1. Teaching resources in relation to schools' average socio-economic background

	Simple correlation between the school mean socio-economic background and:	
	Percentage of full-time teachers	Percentage of teachers with university-level degree among all full-time teachers
Australia	**-0.21**	0.02
Austria	**-0.13**	**0.64**
Belgium	**-0.18**	**0.58**
Canada	0.01	0.03
Chile	-0.04	0.25
Czech Republic	**-0.32**	**0.37**
Denmark	0.01	0.16
Estonia	0.14	0.00
Finland	0.17	-0.01
France	w	w
Germany	**-0.15**	-0.02
Greece	-0.11	0.24
Hungary	**-0.33**	0.07
Iceland	**0.20**	**0.30**
Ireland	0.12	-0.08
Israel	-0.08	0.20
Italy	-0.06	0.13
Japan	**-0.14**	0.20
Korea	-0.14	-0.03
Luxembourg	**-0.16**	**0.39**
Mexico	-0.09	-0.04
Netherlands	**-0.34**	**0.62**
New Zealand	-0.04	0.07
Norway	-0.05	0.15
Poland	-0.02	-0.05
Portugal	0.14	0.04
Slovak Republic	-0.09	**-0.21**
Slovenia	**0.46**	**0.55**
Spain	**-0.29**	m
Sweden	0.05	-0.04
Switzerland	-0.11	0.24
Turkey	0.12	0.04
United Kingdom	**-0.36**	-0.03
United States	**-0.42**	0.10
OECD average	**-0.07**	**0.15**

Note: Blue: Disadvantaged schools are more likely to have more or better resources, in **bold** if relationship is statistically different from the OECD average *Grey:* Advantaged schools are more likely to have more or better resources, in **bold** if relationship is statistically different from the OECD average *White:* Within country correlation is not statistically significant.

Source: OECD (2010a), *PISA 2009 Results: Overcoming Social Background: Equity in Learning Opportunities and Outcomes (Volume II)*, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932561234

The OECD PISA 2009 results confirm that in many countries: in the majority of OECD countries, students in these schools have access to more full-time teachers[17]. However, these disadvantaged schools tend to have smaller proportions of high quality teachers – in this case defined as teachers with advanced university qualifications- than advantaged ones in Austria, Belgium, Chile, Czech Republic, Iceland, Luxembourg, the Netherlands and Slovenia (Table 3.1). Other comparative studies confirm that disadvantaged students are less likely to have qualified or experienced teachers in many countries (Akiba, LeTendre, and Scribner, 2007).

This higher concentration of under qualified or novice teachers in schools serving disadvantaged students has a negative impact on student performance (Darling-Hammond, 2010), further diminishing their chances of success. Depending on how teachers' careers are managed and on financial incentives, more able teachers often avoid teaching in those schools or leave once they have gained enough experience, resulting in very high levels of turnover in many cases[18] (table 3.2) and concerns about the continuity of educational programmes in such schools (OECD, 2005).

Table 3.2. Disadvantaged schools have difficulties attracting and retaining teachers

Country studied	Findings	Study
Australia	Rural schools with higher proportions of aboriginal students are seen as less desirable, making it harder to recruit and retain teachers	Michaelson, 2006
Japan	School leaders report that it is difficult to recruit and retain teachers to work in schools with children born abroad	Gordon, 2006
New Zealand	Teachers in schools with higher proportions of low socio-economic status students have higher propensity to leave	Richie, 2004
Norway	Schools with higher levels of minority students are harder to staff and teachers at schools with higher proportions of minority students and students with special needs are significantly more likely to leave	Bonesrønning, Falch and Strøm, 2005
United States	Teachers in schools with higher proportions of low-SES or minority students have higher propensity to leave.	Hanushek, Kain and Rivkin, 2004
France	Better qualified teachers are less likely to teach in schools containing minority and disadvantaged children.	OECD, 2005

Evidence: effective teachers are vital for disadvantaged schools

Effective teachers are particularly important for disadvantaged schools and their students. First, highly competent teachers can have large positive effects on student performance, strong enough to close achievement gaps between disadvantaged and advantaged students. Second, they may help low performing students to catch up and improve. While effective teaching is particularly helpful for lower performers, they are often the least likely to receive it (OECD, 2005; Darling-Hammond, 2000 in Field, Kuczera and Pont, 2007).

The key to the success of some countries – such as Finland and Korea – which combine equity and high performance, resides in ensuring excellent teachers for all students (OECD, 2011b). It is therefore fundamental to design mechanisms to attract competent and qualified teachers to disadvantaged schools. This issue is both complex and multi-dimensional, as it reflects several challenges: how to expand the pool of qualified teacher candidates, recruit teachers to the places they are most needed, distribute teachers in equitable and efficient ways, and retain qualified teachers over time (Rice, Roellke and Sparks, 2009). Therefore, the appropriate solution to these teacher staffing concerns must be multi-dimensional.

Policy options to attract, support and retain high quality teachers in low performing schools

Targeted and coherent policies are vital to enable teachers to be effective in disadvantaged schools. For instance, incentives can attract high quality candidates, but these teachers can be even better equipped if they are given continuing support to improve their effectiveness. Quality preparation and ongoing support also increase the retention of these teachers (Johnson *et al.,* 2004).

To respond to disadvantaged school needs, it is also important to improve the diversity of teachers. Teachers with similar backgrounds to their students can serve as powerful role models for students, potentially motivating them further (OECD, 2010e). For this to be accomplished there must be a policy for attracting and retaining diverse student teachers into the teaching force.

Align teacher education programmes with the needs of disadvantaged schools

Both initial teacher education and continuous professional development are critical to ensure that teachers acquire the skills and knowledge which allows them to be responsive to every classroom situation. This is especially the case for teachers in disadvantaged schools, confronted with very heterogeneous groups of students and consequently more demanding social, economic and educational challenges (OECD, 2010e).

The design of teacher education must be context-specific (Musset, 2010) and should prepare competent teachers for disadvantaged schools. This can mean:

- reinforcing initial teacher preparation programmes, and including content in the curricula for teachers specialising in disadvantaged schools and students (OECD, 2010e);[19]

- designing programmes that focus on the development of the teachers' capacity to diagnose student problems and to understand the context of the schools they teach;

- including practical field experience in disadvantaged schools as part of their teacher education; evidence shows that they then perform better as teachers (Musset, 2010; OECD, 2010c).

For example, in Finland, all teachers are trained in diagnosing students with learning difficulties and in adapting their teaching to the varying learning needs and styles of their students (OECD, 2011b).[20] It is also the case in Sweden, where teacher education aims to prepare future teachers to create the conditions in which all students can learn and develop: all teachers receive a specific preparation to teach students from diverse backgrounds. The contrary can be an obstacle to student improvement. In Germany, for example, one of the weaknesses that may explain the country's relatively low result on the PISA 2000 test was that the teachers were ill-equipped to deal with students from an immigrant background (OECD, 2011b).

In addition, a solution can be the availability of alternative pathways into the teaching profession. Some programmes specifically target disadvantaged schools, and aim to attract high academic achievers to teach in these schools by providing a direct route into them. Such programmes enable teacher candidates to start teaching after short specific preparation

periods. However, there is evidence that these programmes may not provide adequate preparation for candidates to be effective teachers in disadvantaged schools (Darling-Hammond, 2010; Boyd *et al.*, 2008).

Professional development can improve the quality of existing staff and adapt the teachers' skills and knowledge to the school's and students' needs. It can provide teachers with the tools and knowledge needed to tackle the school's tangible challenges. In Austria and in Greece for example, both initial teacher education and in-service training include specific content in individualised student-centred learning practices (Steiner and the Styrian Association for Education and Economics, 2011; Greek Ministry of Education, forthcoming).

Professional development is more effective when it is sustained (for as long as it is needed), systematic and aligned with the school's needs and goals (Darling-Hammond, 2010; Musset, 2010).

For teachers working in disadvantaged schools, it is essential to tackle the issues systematically, including not only content and pedagogical matters but also other issues related to learning environments (*e.g.* dealing with parents and discipline aspects). This preparation has to be aligned with other elements: for example, the effects of class size reduction can be undermined if teachers do not receive adequate training in effective pedagogical practices for smaller classes (Paul and Troncin, 2004). Effective teacher appraisal mechanisms can help teachers identify strengths and areas of improvement.

Provide mentoring to teachers in disadvantaged schools

Many countries offer induction programmes with mentoring schemes, as research shows that both new teachers and experienced teachers profit from these.[21] Induction and mentoring may improve teacher effectiveness and increase retention of novice teachers, diminishing the negative effects of inexperience and building the experience of the teaching staff by retaining teachers as they gain experience. Mentoring is especially important for new teachers in disadvantaged schools as it can help them become more competent and effective faster (Charles A. Dana Center, 2002). More experienced teachers can: help them to understand the main challenges of a particular school and its students faster; and help them develop adequate pedagogical and relational strategies to respond to students' needs. Effective mentoring and induction programmes can also increase retention of novice teachers (Fuller, 2003; Smith and Ingersoll, 2004), lower the attrition rate (Johnson and Birkeland, 2003) and reinforce their integration into the school staff. Box 3.8 summarises promising examples of mentoring and induction programmes.

Effective mentoring requires suitable selection and preparation of mentors. One problem in many disadvantaged schools is that not enough time is given to the mentors to carry out their tasks, or there are not enough teachers who can play that role. In order to make sure that mentoring works mentors need good preparation programmes (Hobson *et al.*, 2009).

Box 3.8. Selected examples of mentoring and induction programmes

Japan: Induction centres provide all new teachers with in-service training; in schools, teachers regularly observe other teachers and receive feedback on their own demonstration lessons. Teachers also complete an action research project investigating a classroom lesson.

New Zealand: All teachers receive 20% released time during their first two years teaching to participate in the Advice and Guidance programme, in which an experienced teacher leads a peer support group of new teachers, and novices regularly observe other teachers.

Shanghai (China): All new teachers participate in workshops, mentoring, peer observation; they also, analyse lessons in groups with experienced teachers, join teaching research groups with more experienced teachers to discuss teaching techniques, and can be recognised for excellent teaching as novices through district-organised competitions.

Switzerland: All new teachers participate in collaborative practice groups led by trained, experienced teachers; have access to counselling; and take regular courses (voluntary and required) to improve their practice.

Source: Wong H., T. Britton, and T. Ganser (2005), "What the World Can Teach Us About New Teacher Induction," Phi Delta Kappan, Vol. 86, No. 5, pp. 379-384.

Improve working conditions to ensure that teachers are successful in disadvantaged schools

Evidence shows that most teachers are intrinsically motivated by the desire to help students learn, so they are more likely to stay in schools where they can be working with students effectively (OECD, 2005). If they believe they can have an impact on their students and they have resources available to make it happen, teachers will be engaged. Without supportive working conditions, teachers may feel ineffective and be more likely to move to other schools or quit teaching altogether.

Principal support, collaboration with colleagues and adequate resources play a significant role in teachers' decisions to stay in disadvantaged schools and therefore may improve teacher retention in these schools (Allensworth, Ponisciak and Mazzeo, 2009). For example, as shown in Table 3.1, many OECD countries provide additional teachers in disadvantaged schools, which can improve working conditions by reducing class sizes if necessary or by providing additional support.

Improving working conditions to take into account disadvantaged schools' specific characteristics should also include providing time and facilities for meetings, common planning time, additional support and resources. Teachers need to carefully plan and prepare their in-classroom strategies and to meet and discuss critical issues with colleagues (*e.g.* how to use data to target instructional improvement, how to reach consensus on what constitutes progress in the curricula, among others). If teachers do not have the opportunity to work together then instruction, assessment and curriculum implementation strategies (see policy point 4, below) are likely to be ineffective.[22]

Ensure adequate financial incentives to attract and retain teachers in disadvantaged schools

Teachers' views of disadvantaged schools as more difficult places to teach seem to have a major influence on their decisions to change schools (Hanushek, Kain and Rivkin, 2004). However, competent and/or experienced teachers are an important resource for disadvantaged schools, and incentives - salary increases, and other types of financial incentives -may be valuable in rewarding the more challenging work they undertake in these schools. Most OECD countries offer such incentives, such as additional yearly or one-time bonuses, for teaching in a disadvantaged and/or remote area.

The incentives need to be large enough to make a difference; their effectiveness depends partly on the level of teachers' salaries relative to other professions (Chevalier, Dolton and McIntosh, 2005). For instance Hanushek, Kain and Rivkin (2004) estimate that schools in the United States with disadvantaged, black or hispanic students may need to pay 20% or even 50% more in salary than more advantaged schools to prevent teachers from leaving. At the same time, such mechanisms need to be well designed in order to avoid labelling certain schools as "difficult" which may discourage students, teachers and parents (Field, Kuczera and Pont, 2007).[23]

Additionally, financial incentives are only effective when teachers have the capacity to be successful in disadvantaged schools, which implies providing appropriate support and development. Combining incentives and support for new teacher candidates may be most effective for improving teacher quality and student achievement in disadvantaged schools. For example, Korea offers an additional stipend and lower class size to teachers who work in disadvantaged schools (Darling-Hammond, 2010; Sclafani and Tucker, 2006). Box 3.9 offers some examples of relevant incentive programmes.

Working in disadvantaged school should be valued formally in the teacher career path, In other words it means that staying working in these schools need to be recognised as a smart move in their career development.

Box 3.9. Incentives for teachers in disadvantaged schools in North Carolina and in Korea

North Carolina: In the United States, North Carolina enacted teaching quality improvement plans with five key features: increased initial certification requirements for teachers, increased salaries tied to meeting performance standards, new teacher mentoring, ongoing professional development for all teachers, and scholarships and loan "forgiveness" programmes targeted to recruit high quality candidates to teach in disadvantaged schools. The state also offers incentives to attract higher quality candidates and improve the effectiveness of new and continuing teachers, through rigorous initial training, mentoring and ongoing development. North Carolina offered a retention bonus ($1 800 US) for certified mathematics, science and special education teachers in high-poverty and low-performing schools. Overall, the bonus programme reduced teacher turnover by 17%, a cost saving of approximately USD 36 000 for each teacher who chooses not to or delays leaving or moving schools. Before the bonus was implemented, a third of teachers in these subjects were uncertified and many were concentrated in disadvantaged schools.

Korea: In Korea, all teachers are held to high standards, which contribute to the country's high levels of performance and equitable distribution of teachers. Other elements contributing to the high calibre of the teaching force are the highly respected status of teachers, job stability, high pay, and positive working conditions, including high levels of teacher collaboration (Kang and Hong, 2008). Low socio-economic status students in Korea are actually *more* likely than high socio-economic status' students to be taught by high quality mathematics teachers, as measured by characteristics such as: full certification, mathematics or mathematic education major and at least 3 years of experience. Multiple incentives are offered to candidates who work in high need schools. Incentives include additional salary, smaller class size, less instructional time, additional credit towards future promotion to administrative positions, and the ability to choose the next school where one works.

Sources: Akiba, M., *et al.* (2007), "Teacher Quality, Opportunity Gap, and National Achievement in 46 countries", *Educational Researcher,* Vol. 36, pp. 369-387; Kang, N., and M. Hong (2008), "Achieving excellence in teacher workforce and equity in learning opportunities in South Korea", *Educational Researcher*, No. 37, pp. 200-207; OECD (2011b), *Lessons from PISA for the United States, Strong Performers and Successful Reformers in Education*, OECD, Paris; Clotfelter, C., *et al*. (2008), "Teacher Bonuses and Teacher Retention in Low Performing Schools: Evidence from the North Carolina USD1,800 Teacher Bonus Program", *Public Finance Quarterly*, Vol. 36, No. 1, pp. 63-87.

Recommendation 4. Ensure effective classroom learning strategies

Key Findings

Disadvantaged schools often have low expectations for their students, which need to be overcome. There is evidence that carefully adapted and implemented pedagogical practices can make a difference for low performing students. To improve learning in their schools classrooms, policies need to ensure that disadvantaged schools combine the following practices:

- Promote the use of a balanced combination of student-centred instruction with aligned curricular and assessment practices. The use of diagnostic tools and formative and summative assessments allow teachers to monitor children's progress and ensure they are acquiring good understanding and knowledge and make the best progress possible.
- Ensuring that curriculum with high expectations is used in schools: such a curriculum allows promoting a culture of high expectations of success.

Challenge: low expectations for disadvantaged students

Students differ in fundamental ways in their learning: ability, conceptions of learning, learning styles and strategies, interest, motivation, self-efficacy beliefs and emotion, as well as in their linguistic, cultural and social backgrounds. Students bring to the classroom different prior knowledge that substantially influences their learning process, and there is a constant and complex interaction between capacity and experience that shapes learning (Hinton and Fischer; Schneider, Keesler and Morlock, in Dumont, Istance and Benavides, 2010). As a result, students learn at different paces (Comber *et al.*, 2001) and teachers in disadvantaged schools have to adjust to these and develop diversified pedagogical practices to cater for this wide variety of learning needs.

Figure 3.3 suggested the large variation of student performance within schools across OECD countries. This makes it important to understand the different backgrounds and starting points that young people bring with them to school, the strengths and limitations of individuals and groups of learners, and the motivations and aspirations that shape the learning process. Yet, often, across countries many disadvantaged schools are staffed by teachers and administrators who, with the best of intentions, have low expectations for the academic achievement of their students (Gray, 2000). Such expectations have negative consequences for the nature of the curriculum experienced by students, the quality of instruction provided by teachers and, last but not least, for the self esteem of students, their aspirations, and their motivation to learn (Leithwood, 2010; Dumont, Istance and Benavides, 2010).

Evidence: certain pedagogical strategies matter for disadvantaged students

What happens in the classroom is essential, as it is where the core business of learning takes place (Faubert, 2012), and it is especially the case in low performing disadvantaged schools. A recent review of the international evidence on learning presents a set of guiding principles that can shape the way education is planned and offered in schools and classrooms. These principles take into account equity and quality in teaching and learning.

Classroom teaching and learning practices are the most critical factor in the achievement and engagement of students (Black, 2007). Evidence points to concrete classroom practices that can improve the learning conditions of all students, reinforce equity and advance the learning agenda in disadvantaged schools. Faubert (2012) identifies specific instruction, assessment and curriculum related practices that serve all students but may be particularly beneficial for disadvantaged students. When these practices are well conceived and adapted, they can be effective in engaging students in learning through higher-order thinking, problem-solving and communications, student projects and effective assessment (Box 3.10).

Box 3.10. How to deliver effective learning?

A recent review of the international evidence on learning presents a set of guiding principles that can shape the way education is planned and offered in schools and classrooms. These principles take into account equity and quality in teaching and learning.

Learner-centred: the environment needs to be focused on learning as the principal activity, not as an alternative to the critical role of teachers and other learning professionals but dependent on them.

Structured and well-designed: to be "learner-centred" requires careful design and high levels of professionalism. This still leaves room for inquiry and autonomous learning.

Personalised: the learning environment is sensitive to individual and group differences in background, prior knowledge, motivation and abilities, and offers tailored and detailed feedback.

Inclusive: it takes into consideration individual and group differences, including the weakest learners, and defines an educational agenda that excludes no-one.

Social: learning is effective when it takes place in group settings, when learners collaborate as an explicit part of the learning environment and when there is a connection to community.

Source: Dumont H., D. Istance and F. Benavides (2010), *The Nature of Learning: Using research to inspire practice*, OECD, Paris.

Instruction, assessment and curricula for disadvantaged students

Disadvantaged students benefit in particular when instruction, assessment and curricula are systematically intertwined (although this is challenging). Research encourages teachers to develop a large repertoire of pedagogic approaches adapted to the students' needs and careful planning of its implementation.

Both direct and student-oriented instruction methods should be used. Direct instruction is built around problems with clear, correct answers that can be learned quickly. Student-centred instruction is associated with the teacher facilitating students' own inquiry by allowing them time to find solutions to problems on their own before the teacher demonstrates how a problem is solved (OECD, 2009; Rowe, 2007).[24] While there is no consensus in the literature on which approach is better, an over-reliance on either approach is not recommended (OECD, 2008b; Rowe, 2007).

Arranging students in particular group structures can lead to both improved student engagement in the lesson and improved student achievement. Co-operative learning methods, which involve the teacher placing students within the same class in small, temporary groups with mixed abilities focusing on tasks that require them to rely on each other's skills, tend to work equally well for all types of students (Slavin, 2010). The research suggests that high achievers gain from co-operative learning (relative to high achievers in traditional classes) as much as do low and average achievers. This is partly because the effective group methods push learners of all abilities; and partly because the high-achieving students learn through supporting the learning of their classmates who need additional support. However, there is little research on how to teach students to work effectively in heterogeneous groups.

Both summative and formative approaches are valuable and both are considered integral in the learning process. Summative assessment summarises a student's achievement at a particular moment in time; formative assessment evaluates student progress in their learning relative to their learning goals and the information is used to set actionable next steps (Harlen, 2006).[25] Formative assessment is associated with higher academic gains for all students and improved equity in student outcomes (OECD, 2005). It has to be integrated into classroom practice in order to be effective: "the on-going assessment of students' learning should be used constantly to shape organisation and practice in the learning environment and to adapt instruction to students' needs" (Wiliam in Dumont, Istance and Benavides, 2010). Success in the classroom requires that both summative and formative assessment be practised systematically.[26]

Research shows that the curriculum should be common and set high expectations for all, be linked to clear learning goals, and be connected to the next education (or professional) level. As much as possible, classroom activities related to the curriculum should develop student knowledge of real world problems (Dumont, Istance and Benavides, 2010; Faubert, 2012; OECD, 2008b). Schools and teachers should be less concerned with topic coverage and more with their learning strategy. They should learn from multiple and integrated models, modules, and subjects rather than "disconnected and isolated six-week units", which are thought to be rather typical across OECD countries (OECD, 2008b). Curriculum has to be thought of both as catering for substantial individual differences and being able to stretch each learner just beyond what they would normally think themselves capable of (Dumont, Instance and Benavides, 2010). However, the variability in curriculum responsibility and choice across countries[27] makes it difficult to provide clear policy directions on curriculum at the school level.

Policy options to support effective classroom practices in low performing disadvantaged schools

Ensure that school plans combine diversified and flexible pedagogic strategies with assessment

Schools need to have guidelines that promote the use of both direct and student centred instruction methods and both summative and formative assessment (Faubert, 2012). Direct learning approaches are most useful when teaching students basic knowledge and skills. Once students have developed an adequate knowledge base, the teacher can then use student-oriented approaches that are designed to encourage students to generate solutions to their own questions. Box 3.11 presents some instructional practices that work in disadvantaged contexts.

Formative assessment can fuel learning when it is well designed.[28] Student confidence improves with useful, systematic and detailed assessments that are consistent with the learning objectives and will foster the learners' involvement. Disadvantaged schools can benefit from the use of a mixed, balanced and well-designed set of summative and formative assessment tools (Faubert, 2012). To support the use of assessment, teachers need diagnostic and assessment tools that allow them to monitor and respond to what children are learning in order to ensure that they are acquiring a depth of understanding and knowledge.

- *Assessment (summative or formative) followed by feedback:* useful feedback has the following characteristics: specific to the task or the knowledge gap; timely, regular, well-formatted, clear and constructive in tone, makes the learning process transparent; avoids comments on behaviour; and provides actionable steps enabling students to move forward on their own (Black and William, 2005; Hamilton *et al.*, 2009; Hattie, 2009; OECD, 2008b).

- *Formative use of summative assessments:* Teachers and students are encouraged to make formative use of summative assessments. A practical example is provided in Pashler *et al.* (2007): in preparation for a summative assessment, students review materials then take a break (*e.g.*, hour, day or week). After the break, students then attempt to generate keywords and definitions, and summarise the main points of what they reviewed. When students check their responses against the answers, they become aware of what they actually know and can focus their study time accordingly (Black and Wiliam, 2005; OECD, 2005; Pashler *et al.*, 2007).

- *Formative evaluation of teacher preparation programmes:* Teachers should receive training on how to carry out formative evaluation of their own learning programmes. Hattie (2009) found that supporting teachers in effectively assessing how well they are moving forward with their learning programmes led to improved student achievement across different student ages, duration of tasks, and frequency of measurement (Hattie, 2009). For optimal effect, teachers are encouraged to use multiple sources of data (*e.g.*, data collected from classroom assessment, school level data) when assessing their programmes because teacher self-assessment alone will not produce the desired effect.

Box 3.11. Direct and student-oriented instructional practices

Direct instruction

Space learning over time: students are exposed to the material to learn on more than one occasion.

Offer a worked-out problem followed by a related unsolved problem: Worked-out examples should include a problem statement and the appropriate steps to solve the problem.

Concrete and abstract representations of concepts: One possible approach is called *concreteness fading*, or using a concrete representation to introduce a concept or principles, and then systematically replacing relevant components of the concrete representation with abstract representations. (*E.g.* introducing the concept of fractions by cutting a pie into slices and demonstrating how much of the pie would be gone if a slice was given to a friend). Another approach is *concept mapping,* a process by which the teacher introduces a new and abstract concept first by summarising the main points of the lesson, and then identifying and synthesising the major ideas, themes and interrelationships between the concrete and abstract parts.

Deep questions: After students have mastered the factual content of a particular topic, teachers can ask deep or higher order questions that challenge students' understanding of the concept, including: : how did X occur, how does X compare to Y, what is the evidence for X, and why is X important.

Student-oriented instruction

Culturally responsive instruction: requires that the teacher value student concerns, needs and realities (*e.g.*, family, community).

Structured team learning: involves rewards to teams based on the learning progress of their members; it also features individual accountability, which means that team success depends on individual learning, not group products.

Informal group learning methods: covers methods more focused on social dynamics, projects, and discussion than on mastery of well-specified content.

Inquiry based learning methods: using meaningful real-life problems it aims at bolstering the relevance of the learning being undertaken

Sources: Faubert B., (2012),"In-school policies and practices for overcoming school failure**:** A Literature Review", OECD Education Working Paper; Barron, L., and L. Darling-Hammond (2010), "Prospects and challenges for inquiry-based approaches to learning*"* in Dumont, H., D. Istance and F. Benavides (eds.) (2010), *The Nature of Learning: Using Research to Inspire Practice*, Educational Research and Innovation, OECD, Paris; Slavin, R.(2010), "Co-operative learning: what makes group-work work?" in Dumont, H., D. Istance and F. Benavides (eds.) (2010), *The Nature of Learning: Using Research to Inspire Practice*, Educational Research and Innovation, OECD, Paris.

Ensure a curriculum with high expectations, aligned with instruction and assessment

Strategies for low performing disadvantaged schools to improve require a coherent and balanced curriculum that provides the basis for each student to learn to high standards, combined with the appropriate support to help each student achieve his or her potential (Riley and Coleman, 2011). The curriculum has to be coherent and well articulated along the different educational stages.

Schools need to set high expectations for what every child can achieve, despite their levels of disadvantage and the achievement levels with which they enter the school. These high expectations can be complemented with supportive structures and services: positive learning environments offer strong instructional and emotional support (Hamre and Pianta, 2005). Box 3.12 summarises an initiative in the United States with a curricular design that aims at supporting low performing disadvantaged students.

Box 3.12. Engaging students through the curriculum in the United States

A curricular measure that seems to have a great impact is placing low achievers in advanced programmes rather than lowering the expectations. University preparatory programmes such as Advancement via Individual Determination (AVID) use acceleration instead of remediation as a tactic to improve students' performance. In addition to being enrolled in advanced classes, the students receive an hour a day coaching lesson from student peers or teachers to help them with study skills and critical thinking (www.avid.org). Programmes such as AVID reduce dropout rates and increase college enrolment. In California for instance, AVID schools witnessed a 34% decline in dropout rates compared to a 14% drop in non-AVID schools (American Youth Policy Forum, www.aypf.org). AVID also involves a set of extra-curricular activities and engages the family at a variety of levels. Evaluation of the measure showed that all programme components were necessary to obtain a successful outcome.

Source: Lyche, C. (2010), "Taking on the Completion Challenge: A Literature Review on Policies to Prevent Dropout and Early School Leaving", OECD Education Working Paper N° 53, OECD, Paris.

Systematically linking instruction, assessment and curricula is challenging. Further research is still needed as to what are the optimal combinations of these practices as there is no clear evidence to what works. For example, practitioners need to know what assessment strategies can be matched to specific teaching repertoires and curricular goals in a way that is most effective for students with specific learning needs (OECD, 2005; OECD, 2008b).

Schools need to adapt these learning practices to their needs, and not necessarily reproduce the practices that work in schools whose students have different characteristics and needs. For example, it is generally accepted that to improve student achievement at primary school level, it is important to focus on literacy. However, the specific pedagogies used in more advantaged schools may not work with disadvantaged students, and strategies to improve reading achievement among beginner readers may vary from school to school (Corallo and McDonald, 2002). Similarly, students who enter secondary school with poor academic skills will also need to be supported in improving their literacy, but the strategies used will be very different in disadvantaged schools (Herlihy and Quint, 2006).

Data can support teachers and inform their pedagogical decision-making. Examples of data relevant for the classroom context include data on individual student achievement (formative assessment data, test and report card data), instructional time, disciplinary referrals and absenteeism. In the Netherlands for example, 85% of schools use a "learning monitoring system", which contains test results, and which is used to monitor students' progress and development (Akkerman, *et al.,* 2011).

Recommendation 5. Prioritise linking schools with parents and communities

Key findings

Disadvantaged parents tend to be less involved in their children's schooling, for multiple economic and social reasons. Engaged parents encourage more positive attitudes towards school, improve homework habits, reduce absenteeism, disengagement and dropout and enhance academic achievement. Policies need to be designed to ensure that disadvantaged schools prioritise their links with parents and communities, building the capacity to:

- Improve and diversify communication strategies to align school and parental efforts. The more effective strategies target parents who are more difficult to reach and provide them with clear guidelines on how to best support their children.
- Identify and encourage individuals from the same communities to mentor students from disadvantaged schools and support their learning. This can be particularly effective in improving schooling outcomes. Links can also be built with local stakeholders, such as the business community.

Challenge: parents of disadvantaged students may be less involved in their children's education

The family is the first and primary social system in which young children begin to acquire the fundamental cognitive and social skills necessary for school (Machida, Taylor and Kim, 2002 in OECD, 2010f; Heckman, 2008). Parents' educational expectations for their children are one of the key mechanisms through which they influence their children's schooling careers.[29] Parents can play a vital role in their children's learning and development by engaging as "learning" partners from the earliest age, during the school years and into youth. Increasing the familiarity of parents with school activities can trigger more positive expectations about their children's education.

Compared to more affluent parents, disadvantaged parents are less likely to be actively engaged in their child's schooling (West, 2007)[30] and this also seems to be the case for migrant parents (OECD, 2010f). Lower levels of parental engagement may be influenced by pressures derived from economic and social difficulties, lack of flexible work hours, extremely long work hours and single parenting. Also, some migrant parents may not speak the school's language fluently and may have little formal education, making it difficult to participate in and monitor their child's schooling progress. In addition some parents feel uncertain of their role in school and their child's education or unaware of its relevance (Leithwood, 2010): for example, working-class parents in England seem more likely to perceive a separation between home and school and to seek to hand responsibility to the teacher (West, 2007).

Evidence: parental engagement fosters positive outcomes for students

Greater parental involvement in education encourages more positive attitudes towards school, improves homework habits, reduces absenteeism, disengagement and dropout and enhances academic achievement. "Children are more likely to learn when they have structured home environments with clear expectations about learning but adapted to child-specific needs and personalities" (Schneider *et al.* in Dumont, Istance and Benavides, 2010).

Parental engagement in education mostly happens through two vectors (OECD, 2010f): the support parents give to their children at home, such as discussing school activities and helping with homework, and in-school activities, such as taking part in parent-school meetings and other school activities (Nusche, 2009; Dumont, Istance and Benavides, 2010).

The evidence shows that parental involvement – regardless of the economic and social constraints – can make a difference in their children's cognitive and social development (Schenider *et al.* in Dumont, Istance and Benavides, 2010). Families can be instrumental in developing the values and attitudes that encourage student engagement, motivation and success with learning. For instance in helping with homework parents not only reinforce lessons and concepts learned in school, but also demonstrate attitudes and behaviours associated with success in school (Desforges, 2003; Hoover-Dempsey and Sandler, 1995).

High achieving students in disadvantaged schools are more likely to have parents involved in their learning at home and actively participating in their schooling (Ingram, Wolfe and Lieberman, 2007). Schools struggling with unsatisfactory student achievement can benefit from building parenting capacity and encouraging learning-at-home activities. But many disadvantaged schools have to invest significantly more time than other schools in outreach to parents to establish a productive dialogue (MacBeath *et al*., 2005).

Policy options to link schools with parents and communities

As low performance can result from home environments that do not encourage school engagement (Murphy, 2010), schools have to reach out to parents, especially those who may require extra support to engage in their child's learning. To be effective, efforts have to be aligned with school goals and activities (Schenider *et al.* in Dumont, Istance and Benavides, 2010) and be perceived as positive by all parties. For example, if parental involvement puts teachers and parents in opposition to each other, it can be difficult to establish trusting relationships that will benefit the child. Learning is adversely affected when schools lack these trusting relationships (Bryk and Schneider, 2002). Therefore, specific policies should be designed to ensure that disadvantaged schools have the capacity to engage parents in ways that are meaningful and supportive of their children's achievement, creating partnerships.

Ensure schools have the capacity to support parental involvement with specific communication strategies

Good communication between parents and schools allows better coordination between the learning activities carried on between school and home. Homework can be a channel of communication that aligns parents with school goals. Other approaches can be found for parents to take more of an active role in their children's learning activities at home. However, as mentioned before, this can be difficult for families that are far from the schooling culture and for those lacking a clear picture of what school is like. Some key characteristics of effective strategies are described below:

- **Use diverse communication channels:** Formal arrangements to link parents and schools may not work for disadvantaged groups (Field, Kuczera and Pont, 2007). Communication with heterogeneous groups of parents has to be strengthened, and in many cases diversified (beyond to the traditional report cards and newsletters). Schools need to identify ways to work with parents to enhance their skills and enable them to provide more informed support for their children. This can include schemes with financial, logistic and expert support, and actions such as home visiting and community-based initiatives in adult and parental education (MacBeath *et al*., 2005).

- **Ensure balanced communication:** Particularly for children of parents who are less familiar with the working of schools, their behaviour and achievements need to be relayed to parents in a balanced way (Field, Kuczera and Pont, 2007). If the only information reaching home is bad news, there will be little chance of winning support from parents for the efforts being made at school. A diversified teaching force (see policy point 3) can also facilitate the communication between schools and parents and present information in more relevant ways.

- **Target efforts to reach out to certain parents:** Esler, Godber and Christenson (2008) recommend that schools proactively and systematically identify families who are not yet involved in their children's schooling and extend personalised invitations to become involved – whether the child is performing well or not in school. This sends the message to parents that the school values the child and his or her progress (Dumont, Istance and Benavides, 2010). Box 3.13 presents relevant programmes aimed at obtaining support of specific groups of parents.

- **Provide clear guidelines on what is expected from parents:** Schools should seek to encourage interaction between teachers and parents through explicit guidelines on how parents can contribute to their child's schooling, in particular with homework. Examples of what the guidelines can include are: finding an appropriate place to study; devoting sufficient time to homework; helping their children with assignments but not completing them; and conveying messages about the value of homework and particularly its relationship to children's educational goals and those of the school.

Box 3.13. Reaching parents and communities in the Netherlands, Ireland and France

In The Netherlands specific initiatives are devoted to parents from migrant groups, who are generally more difficult to reach and less involved in their children's education. A special Ethnic Minority Parents' Platform was created to foster the involvement of migrant parents. Activities to reach ethnic minority parents include home visits by teachers, creating a room for parents in the school, sometimes in combination with the provision of courses for parents (like language), and the creation of parent information points in the school. Many (primary) schools with a high proportion of migrant pupils have developed a vision and a policy aimed at encouraging parents to support their children's education. On a local level the municipality gives support for parental initiatives and more information for parents.

Ireland has a Home/School/Community Liaison Scheme (HSCL), which is a preventive strategy targeted at students at risk of not reaching their potential in the educational system because of background characteristics. The service focuses directly on the salient adults in children's educational lives and seeks indirect benefits for the children themselves. At present there are some 400 home school community liaison coordinators, deployed across all disadvantaged post-primary schools and urban primary schools that benefit from extra support. The HSCL programme aims to establish partnership and collaboration between parents and teachers in the interests of children's learning and work with staff to develop this spirit of collaboration. The coordinator organises locally based activities to encourage greater contact between parents, teachers and local voluntary and statutory groups to tackle issues in the community that impinge on learning. Approximately EUR 25 million has been allocated to HSCL for 2011, and 155 000 students attending 545 schools (200 post primary, 345 primary) have access to the service, with some 50 000 of these pupils' families being specifically targeted for the services of home school community liaison coordinators.

In France, after being trialed in one school district (Academie de Creteil), the "parents' toolbox" ("la mallette des parents") was introduced in 1 300 lower secondary schools in September 2011. Parents receive a DVD at the beginning of the school year with information on their children's schooling and are invited to participate in three meetings at the school during the school year, on topics such as school organisation, helping with homework and sleeping patterns. The scheme aims to increase links between school and parents, and to ensure more continuity in the child's learning. In its early stages it has achieved very positive outcomes for students, especially in terms of absenteeism.

Sources: Moisan, C. (2011), « Comment en finir avec l'échec scolaire: les mesures efficaces », Projet de rapport national de base de la France. ; Akkerman, Y., *et al.* (2011), *Overcoming School Failure: Policies that Work, Background Report for the Netherlands,* Ministry of Education, Culture and Science, Den Haag. ; Irish Ministry of Education and Skills (forthcoming), *Overcoming School Failure: Policies that Work, National Report Ireland.* www.oecd.org/edu/equity

Support the building of links between schools and their communities

Learning depends also on a range of actors around a "learning community" (Field, Kuczera and Pont, 2007): the surrounding community is an indispensable partner in children's education. Communities can offer a wide range of valuable resources for disadvantaged students and schools, such as volunteer tutors, adult mentors and enrichment programmes for students (Furco in Dumont, Istance and Benavides, 2010). Mentoring migrant students, especially by mentors of migrant backgrounds, is often found to be an effective approach in providing additional educational support and raising the self-confidence of immigrant students (OECD, 2010f).

In return, schools can become resource centres for community development (Field, Kuczera and Pont, 2007). They can work closely with community health, recreation, youth, police and other local institutions to address external student and family obstacles to students' learning. In some education systems, schools offer on-site professionals who provide complementary services directly to students and their parents. Evidence shows that such extensions of school services attract families that would otherwise be unwilling to be involved. The initiative Century Community Learning Center Program in the United States is one example, aiming at transforming schools into community centres by providing extracurricular structure and stimulation as well as supplementary instruction in reading for all.

Conclusion: policies to help disadvantaged schools and their students improve

Schools with higher proportions of disadvantaged students are at greater risk of challenges that can result in under performance, affecting education systems as a whole. Low performing disadvantaged schools often lack the internal capacity or support to improve, as school leaders and teachers and the environments of schools, classrooms and neighbourhoods frequently fail to offer a quality learning experience for the most disadvantaged. Five policy recommendations have shown to be effective in supporting the improvement of low performing disadvantaged schools:

1. Strengthen and support school leadership

School leadership is the starting point for the transformation of low performing disadvantaged schools but often, school leaders are not well selected, prepared or supported to exercise their roles in these schools. To strengthen their capacity, school leadership preparation programmes should provide both general expertise and specialised knowledge to handle the challenges of these schools. Coaching, mentoring and networks can be developed to further support leaders to achieve durable change. In addition, to attract and retain competent leaders in these schools, policies need to provide good working conditions, systemic support and incentives.

Support for restructuring schools should be considered whenever necessary. Splitting low performing disadvantaged schools, merging small ones and closing failing ones can be policy options in certain contexts.

2. Stimulate a supportive school climate and environment for learning

Low performing disadvantaged schools are at risk of difficult environments for learning. Policies specific for these schools need focus more than other schools on the following: prioritise the development of positive teacher-student and peer relationships; promote the use of data information systems for school diagnosis to identify struggling students and factors of learning disruptions; adequate student counselling, mentoring to support students and smoother their transitions to continue in education. In addition, these schools may benefit from alternative organisation of learning time, including the duration of the school week or year, and in terms of the size of schools. In some cases, creating smaller classrooms and schools can be a policy to reinforce student-student and student-teacher interactions and better learning strategies.

3. Recruit, develop, support and retain high quality teachers

Despite the large effect of teachers on student performance, disadvantaged schools are not always staffed with the most effective teachers. Policies must raise teacher quality for disadvantaged schools and students by: providing targeted teacher education to ensure that teachers receive the skills and knowledge they need for working in schools with disadvantaged students; providing mentoring programmes for novice teachers; developing supportive working conditions to improve teacher effectiveness and increase teacher retention; and develop adequate financial and career incentives to attract and retain high quality teachers in disadvantaged schools.

4. Ensure effective classroom learning strategies

Often, there are lower academic expectations for disadvantaged schools and students, while there is evidence that certain pedagogical practices can make a difference for low performing students. To improve learning in classrooms, policies need to ensure and facilitate that disadvantaged schools promote the use of a balanced combination of student-centred instruction with aligned curricular and assessment practices. Schools and teachers should use diagnostic tools and formative and summative assessments to monitor children's progress and ensure they are acquiring good understanding and knowledge. Ensuring that schools follow a curriculum promoting a culture of high expectations and success is highly relevant.

5. Prioritise linking schools with parents and communities

Disadvantaged parents tend to be less involved in their children's schooling, for multiple economic and social reasons. Policies need to ensure that disadvantaged schools prioritise their links with parents and communities and improve their communication strategies to align school and parental efforts. The more effective strategies target parents who are more difficult to reach and identify and encourage individuals from the same communities to mentor students. Building links with the communities around schools, business and social, can also strengthen schools and their students.

NOTES

[1] School failure is defined as the failure of a school to offer fair and inclusive education opportunities that allow each individual student to reach his or her learning potential (see Chapter 1).

[2] According to PISA, across OECD countries schools with a disadvantaged socio-economic intake perform significantly below their country average (OECD, 2010a, OECD, 2010b).

[3] Three categories of schools are identified in PISA: socio-economically disadvantaged schools, in which the average socio-economic background of students is below the national average; socio-economically advantaged schools, in which the average socio-economic background of students is above the national average and socio-economically mixed schools, whose socio-economic intake is around the national average. Schools with a mixture of socioeconomic intake perform in line with the country average; schools with an advantaged socio-economic intake perform above the country average; and schools with a disadvantaged socioeconomic intake perform below the country average (OECD, 2010a).

[4] In countries where a sizable proportion of 15-year-olds are not at school, the variance in student performance is likely to be underestimated.

[5] In Japan, performance disparities by schools' socio-economic background are comparatively large but the overall differences in the socio-economic profiles of schools are comparatively smaller to other countries. That explains why, overall, Japan has one of the more equitable education systems while other countries that have similar performance disparities, such as Germany, are more inequitable.

[6] In that case, "affluent" is defined as a child whose background on the PISA index of economic, social and cultural status is one-quarter of a (student-level) standard deviation above the OECD average.

[7] The school's mean PISA index of economic, social and cultural status is one-quarter of a standard deviation below the OECD average

[8] In some countries, socio-economic segregation may be firmly entrenched, through residential segregation in major cities or a large urban/rural socio-economic divide. In other countries, the school system tends to stream or track students into programmes with different curricula and teaching practices, often resulting in socio-economic segregation across these tracks or streams (OECD, 2010a).

[9] In the UK, only one out of six high-poverty schools is judged as needing substantial improvement in the quality of its education and climate (Lupton, 2004).

[10] Existing evaluation studies on school improvement remain mostly qualitative and with mixed results. This is mainly because of the complexity of factors mentioned above and the difficulty of disaggregating the causal effects on school performance and improvement. Studies on low performing disadvantaged schools are rare, and so there is little systematic knowledge about the processes and characteristics of these schools.

[11] However, the exact ways by which school-level socio-economic contributes to the development of aggressive and disruptive behaviour are still unclear.

[12] This study on the effect of small schools in the United States found that within the first three years of high school, small schools of choice enrolees earned almost one full credit more toward graduation, were 7.8% less likely to fail a core subject and 7% more likely to graduate than their control group counterparts – among other benefits (Bloom et al., 2010). These results are particularly encouraging because of the improved conditions and outcomes for low-income students; and the fact that the results are based on a large-scale randomised control study.

[13] The response to rewards and sanctions for behaviour depends on the school's particular context: for example, detentions can be highly effective in some schools, and counterproductive in others (Wickham, 2010).

[14] Examples of data relevant to the school context could be the results of state-level accountability tests, final grades on an end of term test, class and school size, student attendance, school climate and information from surveys collected about a student's well-being and community.

[15] Participants were 910 children in a national prospective study. Children were identified as at risk at ages 5–6 years on the basis of demographic characteristics and the display of multiple functional (behavioural, attention, academic, social) problems reported by their kindergarten teachers. By the end of first grade, at-risk students placed in first-grade classrooms offering strong instructional and emotional support had achievement scores and student–teacher relationships commensurate with their low-risk peers; at-risk students placed in less supportive classrooms had lower achievement and more conflict with teachers.

[16] A student who has difficulty following lessons in class can receive support in several ways, for example having a special education teacher support and assist the child in the classroom, or teaching the child in a special remedial group outside the regular classroom. If this need is not observed by the school principal, it is possible for the student to complain to the Swedish Schools Inspectorate, which can require the organiser to take action (Båvner, *et al.,* 2011).

[17] In 16 OECD countries, more teachers are allocated to disadvantaged schools to reduce the student-teacher ratio, with the objective of moderating disadvantage (OECD, 2010). This is particularly the case in Belgium, Italy, Ireland, Spain, Estonia, Iceland, Portugal, Japan, the Netherlands and Korea. Only in Turkey, Slovenia, Israel and the United States are disadvantaged schools characterised by a higher student-teacher ratio.

[18] High levels of turnover can have a negative effect on student achievement since teachers may leave before they gain the experience they need to be more effective with students (Rivkin, Hanushek and Kain, 2004).

[19] Examples of diversity content in new teacher education curricula at four Spanish Universities (are included in Chapter 10 in the report of Educating Teachers for Diversity (OECD, 2010e)

[20] In Québec and in Manitoba, all teachers are required to take 6 credit hours in special education for students with exceptional needs during their pre-service training.

[21] Induction is normally understood as a programme designed to support new teachers. Mentoring is usually part of the induction programmes. Mentoring can be defined as the one-to-

one support of a novice or less experienced practitioner (mentee) by a more experienced practitioner (mentor), designed primarily to assist the development of the mentee's expertise and to facilitate their induction into the culture of the profession (in this case, teaching) and into the specific local context (here, disadvantaged school) (Hobson *et al*., 2009).

[22] While the literature shows more and more that this is a key component of effective schools, there is less evidence on how often or how long common planning sessions must be. However it is clear that sessions should be organised frequently and be structured and with enough depth of content to properly share and discuss ideas and decide on appropriate actions (Hamilton *et al*., 2009; Hattie, 2009; Herman *et al*., 2008).

[23] In North Carolina for example, labelling schools as "low-performing" made it harder to recruit and retain qualified teachers. Both experienced and novice teachers were about 25% more likely, to leave schools labelled low-performing compared to teachers in schools with similar student performance that were not so labelled.

[24] Some countries, including Australia, Canada, the United States, Finland, Austria, Iceland, and Norway, have a stronger preference for student-oriented approaches. Others (Bulgaria, Poland, the Slovak Republic, Italy, Portugal, and Spain) broadly endorse the two, with a moderate preference for student-oriented approaches (OECD, 2009; Rowe, 2007).

[25] In the literature, summative assessment is sometimes called assessment *of* learning, and formative assessment is called assessment *for* learning (Faubert, 2011).

[26] The use of summative and formative assessment is different across OECD countries. For example, in England, Germany, Mexico and the United States, policy and practice tradition has led to a mostly summative approach in assessing students, using varied combinations of teacher and externally set tests. In France, teachers have no role in assessing the student summatively and pedagogy is largely based on formative assessment.

[27] Some countries allow for greater regional/local responsibility in determining curriculum (Australia, Germany), while others opt for a more centralised curriculum (England, France, Japan, Mexico, New Zealand, Sweden). Some jurisdictions set a required number of requisite courses or clear pathways (France, Sweden), while others allow for more student choice (England, Germany, the United States) (Black and Wiliam, 2005).

[28] The obvious challenge with this change is that education systems and education stakeholders (teachers, administrators, parents and community members) across OECD have relied on marks (or grades) for generations as part of student assessment (Black and Wiliam, 2005; OECD, 2005).

[29] The interaction of families and friends strongly influences children's patterns of behaviour – from the foods they prefer, the style of clothes they wear, their manner of speaking, etc. Culturally transmitted norms and behaviours can have profoundly enduring effects.

[30] Evidence shows that parents of children in low performing schools are perceived as less engaged by school leaders: around two thirds (69%) of primary school leaders in the low performing schools, compared to 86% of the other schools agreed moderately or strongly that parents often visited their schools. At the secondary level, only 33% of school leaders in the low performing schools, in contrast to 49% of those in the other schools, agreed that this was the case.

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ANNEX A.
REVIEW METHODOLOGY AND OUTPUTS

Purpose and outputs of the review Overcoming School Failure: Policies that Work

This report is the main output of the OECD thematic review *Overcoming School Failure: Policies that Work*. This review was designed to provide evidence on the policies that are effective to improve equity in education and reduce school failure, building on the previous OECD thematic review on Equity in Education and the report *No More Failures: Ten Steps to Equity in Education* (2007).

More specifically, the review aimed at: updating the research on country practices on issues related to equity and school failure; identifying innovative and successful policies and practices; facilitating exchanges of lessons and policy options among countries; and providing a framework of policy options for governments to consider.

In addition to participating country background reports, the review included the preparation of four analytical papers:

- Faubert, B. (2012), "In-school policies and practices for overcoming school failure**:** a literature review", *OECD Education Working Paper,* OECD, Paris.

- Faubert, B. and C. Blacklock (2012), "Review of Evaluation Studies on Reducing Failure in Schools and Improving Equity", Project analytical paper, OECD, Paris.

- Lyche, C. (2010), "Taking on the Completion Challenge: A Literature Review on Policies to Prevent Dropout and Early School Leaving*", OECD Education Working Paper* No. 53, OECD, Paris.

- Musset, P. (2012), "School Choice and Equity: Current Policies in OECD Countries and a Literature Review", *OECD Education Working Paper,* OECD, Paris.

All country background reports, working papers and additional information on the review are available on the website: www.oecd.org/edu/equity.

A corrigendum has been issued for this page. See: http://www.oecd.org/dataoecd/48/16/49631046.pdf

Participating countries and national coordinators

Nine countries participated in the Review and each country appointed a National Coordinator to manage their contributions and engagement:

Austria	Christine Schneider	Federal Ministry of Education, Arts and Culture. Department for International Multilateral Affairs
Canada (CMEC)	Antonella Manca-Mangoff Sylvie Duong	Coordinator, International Unit, Council of Ministers of Education, Canada Analyst, International Council of Ministers of Education, Canada
Czech Republic	Jana Strakova	Institute for Information on Education
France	Nadine Prost	Ministère de l'Education nationale/Ministère de l'Enseignement supérieur et de la recherche
Greece	Anna Tsatsaroni	Professor in Sociology of Education, Department of Social and Educational Policy, University of the Peloponnes
Ireland	Jim Mulkerrins Kelly Donagh Mary Hearty	Department of Education and Skills, Principal Officer Department of Education and Skills, Assistant Principal Officer Department of Education and Skills, Higher Executive Officer,
Netherlands	Ype Akkerman	Ministry of Education, Culture and Science
Spain	Eduardo Coba Arango	Director of IFIIE (Instituto de Formación del Profesorado, Investigación e Innovación Educativa), Ministry of Educaction
Sweden	Annika Hellewell	Ministry of Education and Research

In addition, the Norwegian Ministry of Education, the Korean Ministry of Education and the *Fundació Jaume Bofill* supported the review with staff secondments in 2010 and 2011.

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(91 2011 30 1 P) ISBN 978-892-64-13084-5 – No. 59709 2012

Equity and Quality in Education

SUPPORTING DISADVANTAGED STUDENTS AND SCHOOLS

Across OECD countries, almost one in every five students does not reach a basic minimum level of skills. In addition, students from disadvantaged socio-economic backgrounds are twice as likely to be low performers. Lack of fairness and inclusion can lead to school failure and this means that one in every five young adults on average drop out before completing upper secondary education.

Reducing school failure pays off for both society and individuals. The highest performing education systems across OECD countries combine quality with equity. This report presents policy recommendations for education systems to help all children succeed in their schooling.

Contents

Chapter 1. Investing in equity in education pays off

Chapter 2. Tackling system-level policies that hinder equity in education

Chapter 3. Improving low performing disadvantaged schools

Further reading

No More Failures: Ten Steps to Equity in Education

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Please cite this publication as:

OECD (2012), *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*, OECD Publishing. ***http://dx.doi.org/10.1787/9789264130852-en***

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ISBN 978-92-64-13084-5
91 2011 30 1 P

9 789264 130845