

Chapter 3. Equity, quality and student learning

This chapter looks into specific challenges to deliver equity, quality and efficiency in the Greek education system. The country's recent economic crisis, its geographical dispersion, its increasing diversity due to, among other issues, an influx of school-age refugee children, and a predominant shadow education sector all present challenges for the country. Greece's student performance is below OECD average, and has not improved in the last decade according to international comparative data. A number of policies and initiatives are in place, such as curricular reform, the establishment of "all-day" schools, or reviewing provision and transitions in upper secondary education. There are also targeted approaches to enhance student learning including: Education Priority Zones (ZEP) in disadvantaged areas to combat instances of early school leaving and low achievement in basic skills. The chapter provides an analysis and a set of recommendations to enhance student performance while delivering equity, taking into account current challenges.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Equity in education means two distinctive things:

- *Fairness*: An individual's personal or social circumstances such as gender, ethnic origin or family background, do not present obstacles to achieving their educational potential.
- *Inclusiveness*: All individuals reach at least a basic minimum level of skills.

In equitable 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, 2012_[1]). In its three-year plan the Greek Ministry of Education, Research and Religious Affairs (MofERRA) has made a clear commitment to achieving greater equity in educational provision as well as student outcomes (Ministry of Education Research and Religious Affairs, 2017_[2]). This chapter begins with a review of data on equity and quality in education, with a focus on evidence demonstrating the importance of prioritising both for economic development and social cohesion.

In Greece, overall performance remains below the OECD average (OECD, 2016_[3]) and challenges to equity are primarily related to a lack of inclusiveness, geographic isolation, and refugee status. PISA reveals that a student's socio-economic background explains 12.5% of the variance in student performance in science (marginally lower than the OECD average of 13%). The country has many islands, isolated mountainous areas, and sparsely populated villages. Despite this geographical dispersion, almost every small town and village has its own school. As a result, 3.5% of primary schools and 6% of secondary schools are classified as "difficult to access" by the Ministry (Roussakis, 2017_[4]). Greece is currently dealing with a major refugee influx – nearly one million refugees in 2015 alone (UNHCR, 2017_[5]). And while Greece has often been a transition territory for a number of immigrants headed for other European countries, a large portion of population now intends to stay in the country (OECD, 2017_[6]). At the beginning of the 2017/18 school year an estimated 12 000 school-age refugee children (aged 6-17) were in Greece (UNHCR, 2017_[7]).

Efforts to address these challenges which are reviewed in this chapter include:

- a review of the curriculum to set high expectations and meet diverse student needs looking into the future
- a reform of student assessment practices to improve the quality and value of data gathered to support learning more effectively
- efforts to mitigate the impact of shadow education in public education
- evaluation of resources and practices to support disadvantaged schools (including isolated schools) and students (such as refugee students).

More general policies to ensure teacher and school leadership quality throughout the school system and to monitor school performance, which are also vital to equity and quality, are addressed in Chapter 2 from a governance perspective and Chapter 4 from a school improvement perspective.

3.1. Student learning across the education system

3.1.1. Education, economic and labour market outcomes

Despite nearly universal access to education in Greece, a portion of the population fails to achieve basic levels of literacy and numeracy (see Chapter 1 for an in-depth discussion of Greek educational performance). These “basic skills” lay the foundations for success in work and daily life. The vital contribution of basic skills to participation in the workforce is increasingly recognised, as is growing evidence that low basic skills are linked to poor economic and social outcomes (OECD, 2015^[8]).

The economic and social benefits of successful secondary education completion are multiple: higher educated individuals have both better employment and better health. Highly skilled people are also more likely to participate more actively in the democratic process and community life, are less likely to be dependent on public aid, and are less vulnerable to economic downturns (Fournier and Johansson, 2016^[9]). On the other hand, the student who leaves school without completing upper secondary education or without the relevant skills has far fewer positive life prospects (Dutu and Sicari, 2016^[10]; OECD, 2012^[11]). Evidence from other OECD countries shows that societies with skilled individuals have proved best prepared to respond to the current and any future crises (OECD, 2013^[11]).

Investing in early, primary and secondary education for all, and in particular for children from disadvantaged backgrounds is both fair and economically efficient (OECD, 2012^[11]). The current economic crisis has added urgency to this task, with high levels of unemployment alongside increasing demand for higher-level skills (as discussed in Chapters 1 and 5). Employment rates in Greece increase with educational attainment and are highest for those who have completed tertiary education: in 2017 the employment rate among adults with a post-secondary non-tertiary qualification in Greece was 61%, rising to 69% for those with a bachelor’s or equivalent degree, 82% for those with a master’s or equivalent degree, and 88% for adults with a doctoral or equivalent degree (OECD, 2017^[12]). Table 3.1 shows relative poverty rates in Greece based on area, educational attainment and labour market status.

The distribution of income from work and capital (market income, pre-taxes and transfers) widened during the crisis. Between 2007 and 2014, market income inequality rose by 1.6% on average in OECD countries, but in Greece, at 6.9%, the increase was particularly large. At the same time, the percentage of young people (aged 18-24) living on less than 50% of the median equivalised income in 2014, at 21.5%, was one of the highest in the OECD, against an OECD average of 13.9% (OECD, 2016^[14]). The overall well-being of children in Greece, as ranked in UNICEF’s comparative overview of advanced economies, was ranked 28th out of 29 countries for education and 23rd overall (UNICEF, 2015^[15]). An estimated half a million children in Greece were living in poor families during the period 2009 to 2014, based on the index of relative poverty. In comparison with the EU-14 countries, Greece has the third highest rate of child poverty (26.6%), after Spain (29.6%) and Italy (26.8%). Taking the 2007 relative poverty threshold as an index, the child poverty rate rises to 55.1% in 2014 (Papatheodorou and Papanastasiou, 2017^[16]).

Table 3.1. Relative poverty rates by area, educational attainment, and labour market status

Educational attainment is a good predictor of poverty: Tertiary graduates are least likely to be in poverty

	2009	2010	2011	2012	2013	2014
All (in %)	12.4	13.2	13.1	14.7	14.8	13.8
Area (in %)						
Athens	10.0	11.5	12.2	15.7	15.1	14.4
Rural/semi-rural areas	14.2	14.5	13.8	14.4	14.9	13.9
Educational attainment (in %)						
Not completed primary education	14.8	15.1	14.6	15.9	16.0	14.9
Upper secondary	11.7	13.4	13.8	16.3	16.5	15.4
Tertiary	3.4	4.2	5.2	6.2	7.0	7.1
Labour market status (in %)						
Unemployed	22.9	29.7	31.5	34.9	32.8	32.0
Employee (private excl. banking)	5.4	5.7	5.3	7.0	5.2	4.7
Employee (public incl. banking)	0.7	0.7	0.6	0.6	1.5	1.0
Liberal profession	4.6	4.8	4.9	6.6	6.9	6.9
Own account worker	13.0	15.5	14.5	15.0	20.3	18.8
Farmer	20.8	18.8	17.7	17.7	17.3	16.7
Student	16.1	16.8	17.1	18.2	17.1	15.4
Poverty threshold (€ per month, single person)	577	529	476	429	388	387

Note: The relative poverty threshold is set at 50% of the median equivalised household disposable income in each year. Individuals are ranked according to their household disposable income, equalised by the OECD equivalence scale (i.e. square root of household size). Household disposable income is defined as total income, from all sources, of all household members, net of taxes and social insurance contributions.

Source: Adapted from EUROMOD estimates, cited in Leventi and Matsaganis (2016_[13]).

3.1.2. Attainment, skills and competencies of Greek students

In 2017 the three-year Greek upper secondary education, which spans from age 15 to age 18, was not compulsory. Some 58% of the 15-19 year-olds were enrolled in 2014 (OECD, 2017_[17]), with a significantly higher proportion in upper secondary school (general *lyceum*) than the vocational upper secondary school (*EPAL*). The principal aim of the upper secondary school is to prepare pupils to enter tertiary education. It therefore focuses on strengthening students' general knowledge in subjects such as mathematics and sciences, history, Greek literature and language, foreign languages, social sciences and physical education (Eurydice, 2016_[18]).

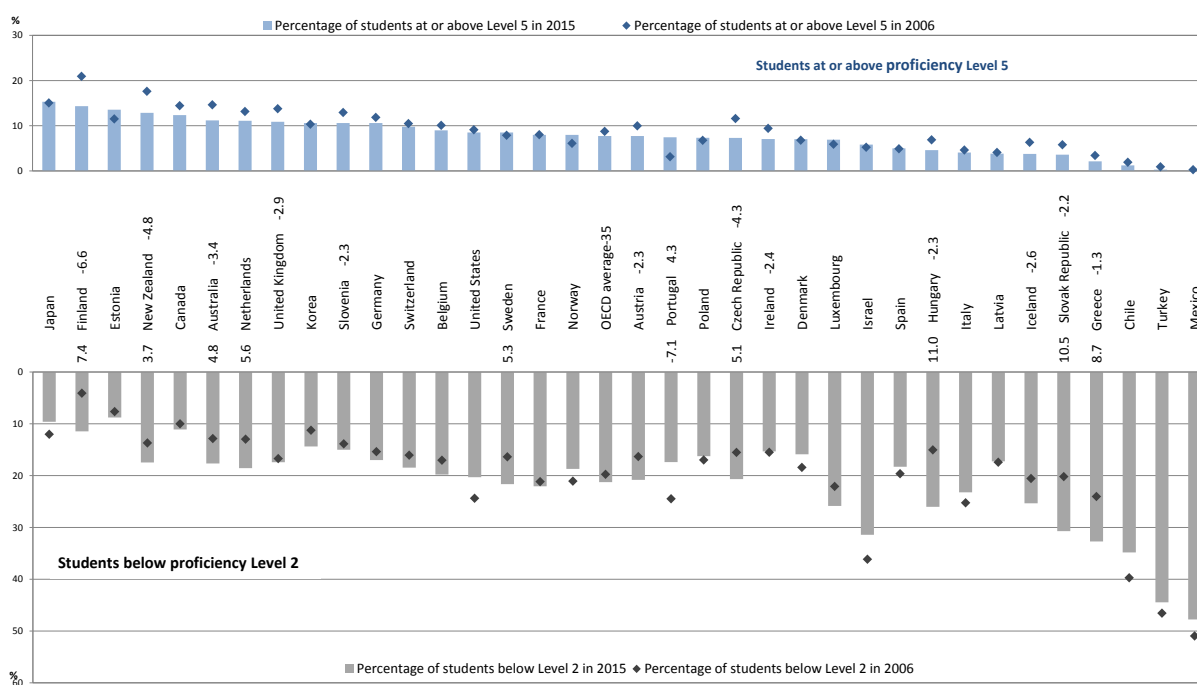
Completing upper secondary education is increasingly the norm in Greece and worldwide: a high proportion of the Greek students who enrol in upper secondary education graduate. Overall, the completion rate was 83% in 2013 and 89% for upper secondary education (OECD, 2017_[12]). The overall rate is slightly lower than the 84% average for similar countries, as it is affected by a lower than average completion rate in vocational programmes.

However, high completion rates do not necessarily translate into high levels of skills as measured by PISA, which reviews the extent to which students near the end of compulsory education (at age 15) have acquired some of the knowledge and skills that are essential for full participation in modern society, particularly in mathematics, reading and science. The performance of 15-year-old Greek students in PISA, while stable since 2006 in mathematics, has declined sharply in science and reading (see Figure 1.11 for a detailed

comparison with the OECD average). These trends are observed in different groups of students and at different levels:

- The proportion of high-performing students in science (at proficiency Level 5¹ or above) has decreased from 3.4% in 2006 to 2.1% in 2015, well below the OECD average of 7.7% (see Figure 3.1).
- The proportion of low-performing students in Greece (below proficiency Level 2) has increased to 32.7% in 2015 (24% in 2003) and is higher in comparison to the OECD average of 21.2%.
- The decline has happened consistently across the school system, among public and private schools, and among all groups of students, regardless of socio-economic status, immigrant status or gender.

Figure 3.1. Percentage of low-achieving students and top performers in science, 2006 and 2015



Note: Countries and economies are ranked in descending order of the between-school variation in science performance, as a percentage of the total variation in performance across OECD countries. The change between PISA 2006 and PISA 2015 in the share of students performing below Level 2 in science is shown below the country/economy name. The change between PISA 2006 and PISA 2015 in the share of students performing at or above Level 5 in science is shown above the country/economy name. Only statistically significant changes are shown.

Source: OECD (2016^[3]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, <http://dx.doi.org/10.1787/9789264266490-en>.

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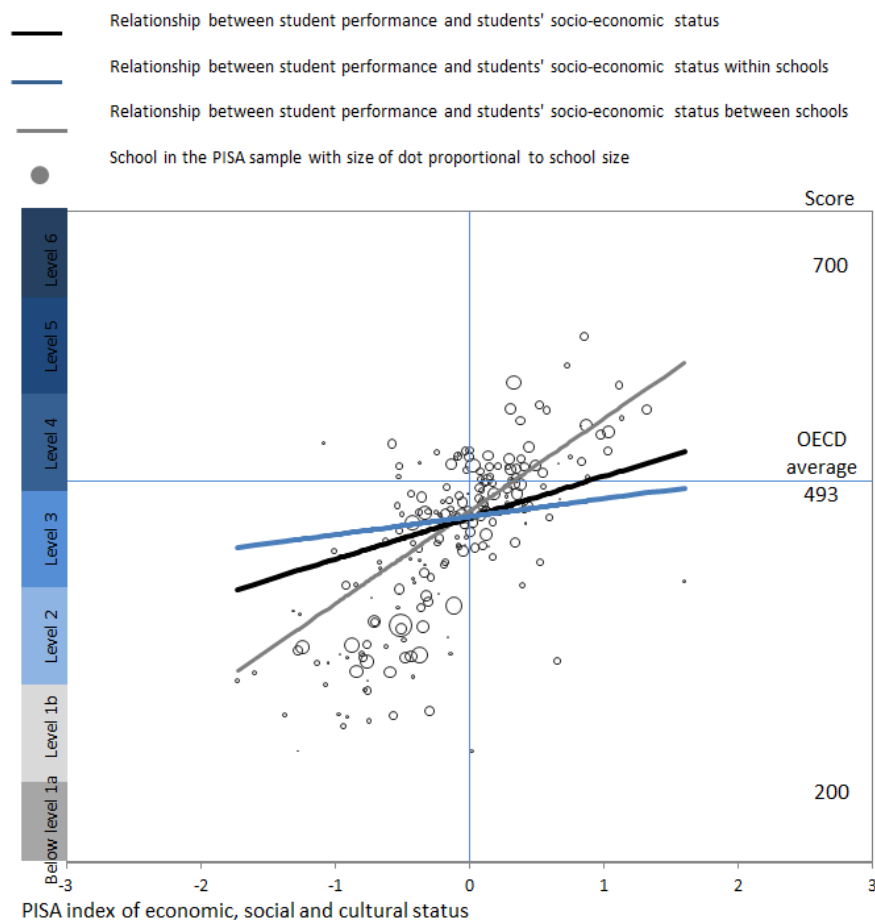
3.1.3. The influence of socio-economic status on educational performance

Across OECD countries, there is clear influence on the background of students on their educational outcomes. This is also the case in Greece, as presented in Figure 3.2. It shows the average performance in relation to the socio-economic composition of the student population² for each Greek school that participated in the 2015 PISA round. In the figure,

each circle represents one school, and the size of the circle is proportional to the number of 15-year-olds enrolled in that school. The patterns show the extent to which student performance is related to socio-economic status across and within schools in Greece:

- The overall performance differences across socio-economic groups, or the gradient between performance and socio-economic status (represented by the thick black line), are not very large.
- Average performance differences among schools can be attributed to the variation in the average socio-economic status of the schools' student population – the between-school gradient (represented by the grey line). Schools in Greece above the between-school gradient (grey line) perform better than predicted by the socio-economic status of their students; schools below the between-school gradient (grey line) perform worse than predicted by the socio-economic status of their students.
- Within a given school, some variation in student performance can be attributed to variations in socio-economic status – the average within-school gradient (as represented by the blue line).

Figure 3.2. School performance and schools' socio-economic profile in Greece



Source: OECD (2016_[19]), PISA 2015 Database, <http://www.oecd.org/pisa/data/2015database/> (accessed on 13 September 2017).

StatLink  <http://dx.doi.org/10.1787/888933710458>

While the figure does not capture all of the inequities that may be observed within Greece, it can provide a reliable indication of equity in education opportunities, particularly from an international perspective. The performance differences across the socio-economic spectrum shown in Figure 3.2 are relatively small and students often perform better (or worse) than expected, given their socio-economic status. This may show that a broad focus on improving performance for all students is important in Greece. System-level policies can be effective to address issues of quality and equity, such as curricular reform or providing equivalent pathways into tertiary education for students, while targeted interventions have their place to provide support for the more disadvantaged schools or groups of students.

In addition, given that performance differences are observed more between schools than within schools, targeting specific schools – for example, low-performing or socio-economically disadvantaged schools – may also be effective.

3.2. Policy issues

3.2.1. *Focusing student learning towards the 21st century*

Across the world countries are seeking ways to foster the competencies needed to thrive in a more volatile, uncertain, complex and ambiguous world. These are the 21st century knowledge, skills, attitudes and values which modern education systems consider important for student learning and well-being. Students increasingly need to acquire not only knowledge (including both disciplinary and cross-disciplinary concepts, content, methods and tools), but also cognitive skills (such as problem solving, creativity, or critical thinking), social and emotional skills and attitudes (such as collaboration, communication or cross-cultural skills), all while assuring their physical and mental well-being (OECD, 2018_[20]). This requires curricular revision to ensure that students are obtaining the competencies required. A range of OECD countries have embarked in curricular reforms focusing on achieving these aims (see Box 3.1.).

Curricular reform raises many issues. The quality of a curriculum's content is important not only in relation to subjects taught and how they are delivered to ensure students' deep learning, but also in terms of ensuring equity in implementation (e.g. even quality levels across different schools and classrooms and tailoring of learning to support diverse learner needs).

International evidence shows that having a coherent and balanced curriculum that provides the basis for each student to learn to high standards is essential not only for all students, but especially to support disadvantaged schools and their students (Riley and Coleman, 2011_[21]; OECD, 2012_[22]). It is also important to ensure the relevance of what they learn and align it in the transitions into next levels of education.

Adapting the curriculum to new needs

The introduction of new Greek curricula, currently under way as part of the three-year plan for education, provides an opportunity to adapt Greek education for the future and also to support greater equity. It is envisaged as such:

Planning a reform of curricula with emphasis on diversified pedagogy (refugee education, immigrants, and vulnerable social groups...). Soon a more rational programme that respects both the number of courses and their hours of teaching will begin to be institutionalised gradually in schools instead of the plethora of courses in the current system (12-14). At the same time, the Ministry of Education,

Research and Religious Affairs, in collaboration with the Institute for Educational Policy, has set up committees to rationalise the curricula (Ministry of Education Research and Religious Affairs, 2017_[21]).

Under the plan, new curricula are currently being developed for most upper secondary school subjects. These will be the focus of a national dialogue and discussion in committees overseen by the Institute for Education Policy. During this process, general principles and selected themes considered important and appropriate for students at each stage will be developed, and the curricula drawn up by the previous government evaluated, judged, and either retained, amended or discarded on the basis of the same criteria.

Currently, curricula in Greece are heavily focused on acquisition of subject knowledge rather than the development of competencies (which combine knowledge, skills, attitudes and values) (Eurydice, 2014_[23]). The Ministry and other officials interviewed by the OECD review team have cited this as a reason that Greek students do not perform well on the OECD PISA, which has a strong focus on competencies. They noted that by other measures, however, Greek students are academically able to do very well in higher education within Greece as well as in universities in other settings. While PISA may not necessarily align with current Greek curricula, it is nevertheless a relevant measure of student capacities insofar as it explores how students put the knowledge they have to use in a range of contexts. These types of literacy, numeracy and scientific skills are important to function in our societies, and also for the 30% who do not succeed to gain admission to university but take different routes in their lives.

It is important to note that competency-based curricula do not mean that acquisition of knowledge is no longer valued. Rather, students learn to structure and use knowledge in different contexts. There is a strong focus on problem solving and critical thinking. Moreover, attitudes and values, which are important to soft skills such as teamwork and creativity, and for students' well-being, are also supported (OECD, 2013_[24]).

Box 3.1. Recent curricular reforms in other OECD countries

In **Finland**, the development of the national curriculum has been used to steer overall policy direction and set broad frameworks that local municipalities and schools then take on board and adapt to their own individual context (Hargreaves, Halász and Pont, 2008_[25]). The national core curriculum contains the guidelines for the overall provision of education as well as the objectives and key instruction content. The core curriculum also addresses development of the school culture and co-operation, implementation of education, instruction and guidance, support for learning, pupil welfare as well as assessment of learning. Curricular reforms are undertaken approximately every decade and are informed by a national consultation. The most recent comprehensive curricular reform conducted between 2012 and 2016 aimed to modernise teaching and learning through the use of new pedagogies, developing new learning environments and promoting a new school culture. These reforms were undertaken with the overall aim of improving the equality and equity of education in Finland. The factors that were taken into account in the overall strategy included: clarifying the vision of education; determining the actions required to develop the curriculum; identifying the new or enhanced skills required for teachers; and providing standards to clarify the curriculum to practitioners (Finnish National Agency for Education, 2016_[26]).

Wales decided that its curriculum and associated assessment arrangements were to be the embodiment of the aspirations that Wales has for its children and young people. The curriculum therefore had to be designed and realised to meet those aspirations (Donaldson, 2015_[27]) and Wales has engaged in a major reform of its curriculum geared towards 21st century competencies. The new curriculum aims to make learning more experience-based, the assessment of progress more developmental, and to give teachers the flexibility to deliver in more creative ways that suit the learners they teach. The curriculum will be made available by April 2019 for public feedback. A final version will be published in January 2020, and implementation throughout Wales completed by 2022 (Welsh Government, 2017_[28]).

The development and implementation strategy recognises the importance of alignment across key policies and actors. The curricular reform is therefore accompanied by supporting programmes towards the professional learning of teachers and school leaders and in establishing a constructive accountability culture (Donaldson, 2015_[27]).

In addition, the Welsh Government has recognised that successful and sustained realisation of its ambitious will require a move away from a centrally-driven model of change to one that promotes local ownership and has empowered key aspects of development to the regional and local authorities and schools. The curriculum is being developed through a process of co-construction with a group of pioneer schools, but there is already wide communication on its purposes. At the school level, a particular focus on the role of school principals aims to ensure that they are well versed in the implementation of the curriculum, in the specific training required for teachers and in providing support to introduce learning and teaching that aligns to the curriculum.

Setting and clarifying expectations for all students

The introduction of new curricula with a learning standards or outcomes-based approach across different countries represents a change in the approach to expectations for student learning. Learning outcomes are “...statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence” (European Centre for the Development of Vocational Training (CEDEFOP), 2008_[29]). Learning is measured against standards and criteria for attainment. In principle, this approach supports greater equity of learner outcomes, as the aim is to help diverse learners meet standards in different ways, rather than to rank them by performance. By focusing on the gap between student performance and standards, teachers with good diagnostic skills may identify individual learners’ needs and support them to close the learning gap (European Centre for the Development of Vocational Training (CEDEFOP), 2016_[30]). Aligned, rigorous and supportive curricula that provide the basis to learn to high standards, with adequate support in place, can help students achieve their potential (Riley and Coleman, 2011_[21]).

In practice, even with standards, it is often the case that disadvantaged students and schools perform at lower levels. One study of UK schools found that those drawing their students from the lowest socio-economic groups accounted for 17% of schools in the country, but over two-thirds of failing schools came from this group (Gray, 2000_[31]). In Greece a 15-year-old from the bottom quarter of the distribution of the PISA index of economic, social and cultural status (ESCS) is nearly three times more likely to perform poorly in science, relative to non-disadvantaged students, and only 18.1% of these students manage to

overcome their disadvantage to perform in the top quarter of students among all countries/economies, after accounting for socio-economic status, against an OECD average of 29.2% (OECD, 2016_[32]; National Research Council, 2000_[33]; Rubie-Davies, 2007_[34]; Rubie-Davies, Hattie and Hamilton, 2006_[35]).

While there are many education and non-education factors at play in these performance differences, there can be a difference in expectations for lower socio-economic background students. Research reveals that lower expectations have negative consequences on the delivery of the curriculum, the quality of instruction provided by teachers and especially for the self-esteem of students, their aspirations and their motivation to learn (Leithwood, 2010_[36]). How much of this may be down to the expectations of students may be revealed in part by career expectations of the students themselves. In the 2015 PISA round, students were asked what kind of job they expected to have when they were around 30 years old: across almost all countries, the expectation of pursuing a career in science was strongly related to an individual student's proficiency in science. A much smaller percentage of disadvantaged students (18.9%) than advantaged students (31.5%) expected to work in a career in science. This was even more likely in Greece, where 35.7% of the more advantaged students expected a career in science but just 19.4% of the disadvantaged did – even among students who perform similarly in science and reported similar enjoyment of learning science (OECD, 2016, p. Table I.6.8_[32]).

The OECD review team was not aware of the expectations for students in Greece beyond passing their grades and attending tertiary education. Indeed, Greece places high value in education, and there are high participation rates in school and low dropout rates and important numbers of students in tertiary education. But it is important for Greek schools and society in general to set and communicate high expectations both for educational performance and for life chances for *all* their students – key for student learning and for making students active participants in their learning. This is especially important vis-à-vis disadvantaged students and schools, so that they can later contribute to their society and economy (OECD, 2012_[1]). Contemporary research on learning has revealed that schools should set clear expectations, demand hard work and challenge students (without overloading them), and use assessment strategies consistent with these expectations, including strong emphasis on formative assessment focused on helping students to identify learning needs and meet goals. Each learner needs to be sufficiently challenged to reach above their existing level and capacity (Dumont, Istance and Benavides, 2010_[37]).

Plans to reform upper secondary education have been announced

Upper secondary school (general *lyceum*) was restructured in 2013, and again in 2015 (Eurydice, 2016_[18]). The first two years now provide students with general education in nine common subjects plus one elective in the first year (Grade A), and with eleven common subjects and two orientation courses in the second year (Grade B) – the latter courses giving students a taste of humanities and a chance to deepen their knowledge in sciences. The third year (Grade C) offers as many general subjects but with fewer teaching hours, which allows students to choose one of three “orientation courses” where they can specialise in humanities, sciences or economics and informatics.

The three-year plan for education announced in 2017 foresees a reform of upper secondary school to emphasise a more generalist approach over the current more specialised approach (Ministry of Education Research and Religious Affairs, 2017_[2]). The government's stated aims are to “upgrade the [upper secondary school (*lyceum*)] and restore its proper function and pedagogical role”:

The reorganisation of secondary education aims at upgrading its educational role, autonomy and independence at every level, so as to offer the greatest educational benefits to students. The creation of an autonomous upper secondary school level (lyceum) will prepare students for entry into higher education by giving them all the necessary skills, without, however, negating the autonomous educational role of the school (Ministry of Education Research and Religious Affairs, 2017, p. 5_[2])

In the context of the above aims, legislation was being prepared as this volume went to press. This included a new law on upper secondary education (general *lyceum*) and a revision of university entrance examinations, which are expected to include an element of teacher assessment of student learning. Laws on both are scheduled to be presented to Parliament in the course of 2018. The OECD review team was informed that the goal of the reforms outlined above is to increase students' engagement at upper secondary level and to counter the influence of shadow education (Institute of Educational Policy, 2017_[38]). The stated aims are to strengthen the common core in Grade B; to turn Grade C into a year of transition to tertiary education with fewer courses taught and more hours of each; and to concentrate most of the instructional time on the subjects covered in the Panhellenic exam. The proposed reform includes changes that would affect the Panhellenic itself: a "bonus run" would be offered in January along with the final examination in June, and grades from the final semester would be taken into account in the overall assessment. The plan is to progressively make upper secondary education compulsory (until the age of 18) and to allow students who do not want to pursue tertiary studies to choose "professional" subjects as part of their general upper secondary course load.

These propositions could be further complemented by ensuring that students keep engaged with their studies throughout their upper secondary education and that they effectively develop the knowledge, skills and attitudes they need to thrive in higher education and in the workplace. Many countries have been studying ways to bridge the gap between general upper secondary education and the professional world. Some of these initiatives seek to develop the transversal skills students will need no matter the sector they specialise in. For example, in Singapore, the general upper secondary curriculum offer applied courses for students to learn how to use the knowledge they acquire in academic classes in a work setting (Singapore Ministry of Education, 2017_[39]).

In line with the ongoing reflections about curricula across education levels, the curriculum for the general upper secondary school could aim to provide students with both the content knowledge and the skills to apply it in the work place. A central measure could be to determine the skills that each subject can help develop for each student, and to propose pedagogies to develop these skills. In France, for example, a common framework of knowledge, skills and culture – the *socle commun de connaissances, compétences et de culture* (National Ministry of Education, 2017_[40]) – was introduced to help structure learning and assessment in lower secondary education, and make it clearer for teachers and students how students can apply what they learn in various situations. The potential contributions of the subject to each skill are explained in the pedagogical programmes, as well as methods to assess students' progress towards acquiring these skills. A similar framework could be developed for upper secondary education in Greece in collaboration with teachers and other stakeholders.

Helping students understand the relevance of what they are learning in formal classes enhances the chances that they will engage and learn more. In Greece, the value of the final year of upper secondary education could be extended beyond just preparation to take the Panhellenic examinations. A complementary measure would be to balance the general

curriculum between academic subjects and application. Subjects such as history, philosophy or mathematics are crucial to master, but it is sometimes difficult to find a direct application in the classroom context. Reserving some hours of each discipline to apply the content learnt would be valuable for Greek students and teachers, as it would anchor the knowledge and prove to students that what they learn can be used and applied in different settings (Merrill, 2002_[41]). In Finland (see Box 3.2) applied courses mix elements from various subjects, providing students in general tracks with opportunities to make direct use of their knowledge and to discover vocational subjects (Eurydice, 2017_[42]). The latter especially help students to become familiar with and to value their knowledge in a professional setting. Bridging the gap between general and vocational tracks can also contribute to promoting vocational education to pupils who might otherwise succeed in more professionally orientated courses.

3.2.2. *The impact of the Panhellenic exam*

Tertiary education admissions decisions are currently based on the Panhellenic university entrance examination, used to rank students nationally (Table 3.2). Although upper secondary school prepares students mostly for entry into tertiary education, 30% of the students who take the Panhellenic examinations do not pass it. These students may find themselves with an academic training that may not have prepared them to enter the labour market. Those who fail the test have the opportunity to go to higher education if they retake and pass the Panhellenic tests (Eurydice, 2016_[18]). There are no published data on the outcomes for students who fail the Panhellenic examinations.

Table 3.2. Pass rates in the Panhellenic exam, 2017

Number of students to secure a place at a university or other tertiary institute

Candidates in the 2017 Panhellenic exam	Successful candidates	Success rate
96 089	67 684	70.4%

Note: Candidate counts are general and vocational upper secondary schools (*lyceums*) combined.

Source: Ministry of Education, Research and Religious Affairs (2017_[43]), MySchool data, Unpublished.

The Panhellenic examinations have such crucial consequences that the last year of upper secondary education is effectively focused on preparing for this test – although this preparation appears to largely take place *outside* school. Indeed, evidence indicates that the test has been so often disconnected from upper secondary curriculum that many students enrol in *frontistiria* schools or pay for private tutors to prepare for the examination. Exact participation rate data are difficult to come by – especially for private tutors. The Institute for Education Policy (IEP) observed in discussions with the OECD review team that it appears that Greek students do not attend or do not pay attention to most of the classes taught in their last year of upper secondary education because the subjects in the curriculum do not align with what is assessed in the Panhellenic examination (Panayotopoulos, 2000_[44]).

The Ministry and its advisory bodies have put forth proposals to increase teachers' assessment roles: these include support for classroom-based formative assessment (that is, regular assessment of student progress to identify learning needs and adapt teaching and learning) and also a stronger assessment role for teachers in scores for university admissions decisions (with 20% to be based on teachers' scores, and 80% to be based on

the Panhellenic examinations). These approaches have the potential to support greater equity and quality of student outcomes more generally, and to reduce the weight of the Panhellenic examination.

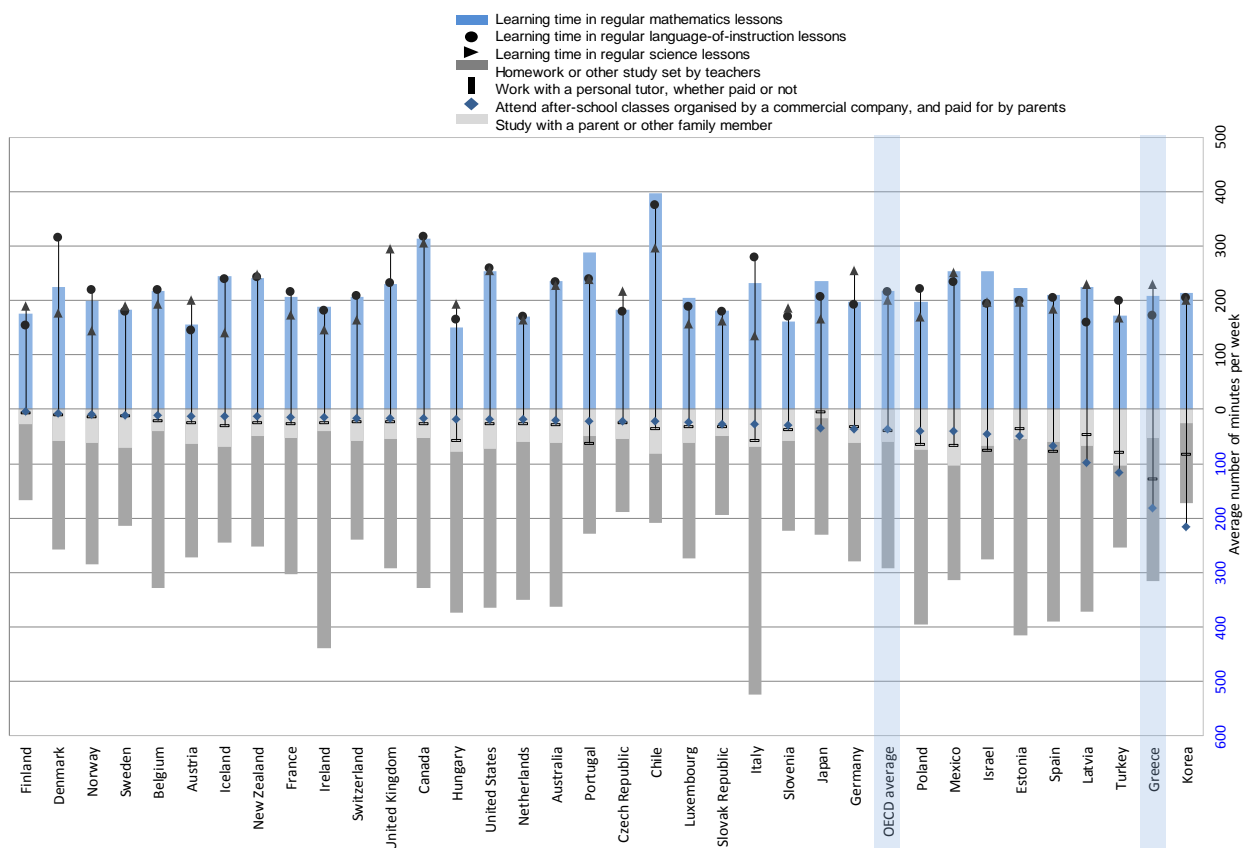
In order to lower the stakes of the examination, the Institute for Educational Policy (IEP) has proposed that 20% of student rankings in the competition for a university place be based on teacher assessments. This would not only help to lower the stakes of the Panhellenic, it would help to strengthen the alignment of measures used to assess student learning – that is, help ensure that all relevant aspects of student performance would be covered by the examination, and that all inferences, uses and consequences attached to the result are appropriate (OECD, 2013_[24]). At the same time it would “re-valorise” teachers’ assessment roles and learning taking place in schools.

As with any assessment, teacher-scored summative assessments need to be valid (to measure what they are intended to measure) broad enough to assess each student’s competencies for all learning objectives, and reliable (scoring needs to be consistent between different teachers and between different schools). In the case of tertiary admission decisions, it will be even more important that reliability extend across schools. Teachers need to develop a shared understanding of criteria for quality. They may also need to share evidence of their understanding of validity, and to engage in inter-school moderation. Investments in teacher capacity building are vital to this process.

3.2.3. Shadow education is prevalent in Greece

The Panhellenic examination is considered one of the current central drivers for the large private expenditure on education in Greece (see Chapters 1 and 2). In a comparative perspective, this has been measured several times in the PISA study. In 2012, students were asked if they had attended after-school lessons. Self-reported results shown in Figure 3.3 reveal that Greece ranks the highest across OECD countries in terms of time spent per week in after-school classes organised by a commercial company and paid for by parents. Additional evidence also shows a difference in uptake between students who are in the bottom quarter of economic, social and cultural status and those in the top quarter was the largest captured by the 2012 PISA survey (OECD, 2013_[45]), despite anecdotal evidence of disadvantaged families making enormous sacrifices to purchase after-school tutoring for their children.

Figure 3.3. Student learning time in school and after school, 2012



Note: Countries and economies are ranked in ascending order of average time spent in after-school classes organised by a commercial company, and paid for by their parents.

Source: OECD (2013_[45]) *PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices*, <http://dx.doi.org/10.1787/9789264201156-en>.

StatLink  <http://dx.doi.org/10.1787/888932957327>

The impact of shadow education

Across countries, absolute learning time in schools is positively, but weakly, related to performance, but relative learning time in schools – the proportion of time spent in school classes relative to other learning activities – is more strongly related to performance. The implication of this is that the *quality* of school lessons leads to better overall student performance (OECD, 2011_[46]).

Therefore, simply adding hours to the school day or encouraging students to spend more time in after-school lessons or in individual study would not automatically improve educational outcomes. Already, students spend long hours learning inside and outside of school in Greece, but score significantly below the OECD average in science. The ratio between PISA science scores and total learning time is relatively low, which may be indicative of the efficiency of the education system (OECD, 2017_[47]). Therefore an in-depth study of how regular school lessons are structured – including when in the day classes are held, class size, length of school day and school term, the length and frequency of vacation time – could assist Greek policy makers in developing a schedule of school lesson time that is most effective for learning (OECD, 2011_[46]).

How much academic improvement is brought by shadow education is contested and has not been the subject of systematic analysis in Greece to date. Research in other countries is inconclusive: in a survey of more than 10 000 pupils in grades 5-9 at schools in German-speaking Switzerland, tutoring rarely brought any improvement in the marks of these students – despite the perceptions of those tutored being the opposite (Grunder et al., 2013_[48]). Many countries still lack reliable data about the number of students who participate in shadow education, with two exceptions: Japan and Korea (see Box 3.2). (Bray and Lykins, 2012_[49]). A systematic investigation of the educational impact of shadow education in Greece could therefore create a solid basis for a public debate on the meaning and purpose, distribution and impact of shadow education. Such a study would necessarily go beyond learning outcomes to take in student well-being and potential synergies between learning inside and outside formal school hours (OECD, 2014_[50]).

Nevertheless, most researchers have focused on the negative impact of private tutoring on public education. They point out that interest and motivation of students shifts from public school units to *frontistiria*. Indeed, the OECD review team was told by some students how they regard highly *frontistiria* teachers, especially because they are able to study in small groups of less than five students and they get individual support. Further, teachers in the public sector may reduce their teaching efforts in the understanding that all their students attend *frontistiria* anyway, so they will have other opportunities to learn (Kassotakis and Verdis, 2013_[51]). This creates a perverse incentive for public school units to relax and underperform, and further undermines the regard students may have for their schools. This “demoralising” effect on public upper secondary education has been repeatedly noted (OECD, 1997_[52]; Panayotopoulos, 2000_[44]). In addition, research to date would appear to indicate that investing in shadow education does indeed foster educational inequalities. This has been the case in many countries in Asia, where the practice is widespread and longstanding (Bray and Lykins, 2012_[49]).

In addition to education provided in *frontistiria*, there is also individual private tutoring (*idietera*). This individual tutoring can take place in the *parakonomia* (shadow economy), which makes it difficult to detect or regulate. There is little concrete evidence to suggest that the practice of public school teachers offer private lessons out of hours is particularly widespread. Anecdotal evidence would suggest that the costs of private tutoring have declined since the beginning of the crisis, but there are wide variations in charges and very few signals of quality to parents beyond word-of-mouth recommendations (Liodaki and Liodakis, 2016_[53]). Registering tutors, which can serve as a market signal of quality to parents, could help address this. Several countries, such as in Lithuania, have instituted such schemes (see Box 3.3); existing regulations in Greece could be updated to allow this.

Government responses to shadow education

Governments internationally have typically responded to private tutoring in one of four ways: by ignoring the problem entirely, by attempting to ban it, by regulating it, and by actively encouraging it (Bray, 2009_[54]). Efforts to ban private tutoring in other countries have so far been unsuccessful: attempts to do so in Cambodia, Egypt, Kenya, Turkey, Uganda and West Bengal all failed (Bray, 2009_[54]).

Box 3.2. Combating shadow education: The experience of Korea

In Korea, because of the strong national importance and emphasis placed on admission to top universities, there is a considerable demand for private tutoring (usually in private institutions called *hagwon*). This has been reported to not only affect education delivery in the formal education system but also student motivation and well-being (OECD, 2016_[55]). As a result, successive governments have made repeated attempts to limit private tutoring consumption. In 2006, state education authorities restricted the hours *hagwon* could open in an attempt to reduce the time and resources being spent on their services. Recent studies found that imposing the curfew did not, as expected, generate a significant reduction in either the hours or the resources spent on private tutoring (Choi and Choi, 2016_[56]). Demand for private tutoring seems to be especially inelastic for upper secondary school students in Korea, who in response to the ban increased their consumption of alternative forms of private tutoring. Given that the consumption of private tutoring is positively correlated with socio-economic status, strengthening the curfew may have had a negative effect on the equality of educational opportunities (Choi and Choi, 2016_[56]; OECD, 2016_[55]).

Korea introduced an online education system first in 2005 to reduce family expenditures on private tutoring by serving as a supplement for after-school education (Jang, 2006_[57]; Lim and Kim, 2008_[58]). By 2009, the Cyber Home Learning System (CHLS) employed 6 147 cyber teachers for 1.6 million students and 2 692 parental tutors (Kwan, 2009_[59]). With a high rate of home Internet use (99.2% in 2016) (OECD, 2017_[60]), this system was easily accessible to school-aged children in nearly all homes. In 2016 just 69.1% of Greek households had access to the Internet (OECD, 2017_[60]). The CHLS supports students by providing free learning programmes based on the national curriculum. Students can either study independently or select “cyber teachers” or tutors who can support and manage their learning via the CHLS program. A survey of parents in 2006 found that the system was more effective in replacing private education in low-income families, regardless of where they lived (Cho et al., 2009_[61]). However, a survey of students in 2015 found that over half thought that they would never or rarely replace private face-to-face tutoring with CHLS, while another 25% would only sometimes replace private tutoring with CHLS (Hye Shin and Albers, 2015_[62]).

To date Greece has tended towards regulating the sector: current regulations require that the director of each new *frontisterio* be qualified to teach in a state school, and that safety inspections of the premises are performed before they can open. However, there are no controls on what is taught, the recruitment of teachers, or the fees charged. Previous efforts to regulate the sector included obliging *frontistiria* to only use official textbooks and banning them from administering mock exams (Kassotakis and Verdis, 2013_[51]).

International experience would indicate that banning the practice is unlikely to be practical or effective (see Box 3.2 and Box 3.3, (Bray, 2009_[54])). Experience in southern Europe would appear to indicate that effective regulation of the sector requires a thorough regulatory framework and enforcement (Liodaki and Liodakis, 2016_[53]). Regulating the sector could move beyond the strict business aspects of transparency in financial transactions, the safety of premises and advertising standards (OECD, 2014_[50]). Some governments have found that heavy levels of regulation might be alleviated if shadow education providers engage in self-regulation, as has been the case with the Japanese

extracurricular *Juku* Association and the Korean Association of *Hagwons* (OECD, 2014_[50]; Lee, Lee and Jang, 2010_[63]). In Greece, engaging in regular dialogue with the National Association of *Frontistiria* Owners (OEFE) could, at the very least, help gather policy relevant data.

Box 3.3. Regulating private tutors: The experience of Lithuania

The 2003 Law on Education in Lithuania introduced the concept of a “freelance teacher”, which is defined as a person licensed to engage in educational activity on an individual basis. A freelance teacher can “carry out pre-school, pre-primary education curriculum and other non-formal education programmes, implement modules of formal education programmes, modules supplementing formal education programmes and modules of programmes meeting learners’ self-expression needs, and upon the acquiring of the licence – formal vocational training programmes” (Republic of Lithuania, 2011_[64]).

Specifically, a freelance teacher has the right to:

- Work according to their individual programmes.
- Choose their own methods and forms of pedagogical activity.
- Provide educational assistance.

A freelance teacher must:

- Ensure their learners’ safety.
- Have a workplace intended for education that meets hygiene requirements.
- Implement a teaching process that has been agreed upon with the learner.
- Deliver the education content in a comprehensible and explicit manner in the correct Lithuanian language where it is defined by legal acts that the appropriate education content is delivered in the Lithuanian language.

A freelance teacher is not allowed to teach learners whom they teach at school in the same subject (Republic of Lithuania, 2011, pp. 43, Article 50_[64]).

Other obligations for freelance teachers include observing ethical standards and committing to upgrading their qualifications. Nevertheless, there is no special legal act properly regulating the activities of freelance teachers and no prosecutions have ever been brought for failing to meet the defined standards. Freelance teachers are expected to declare the money earned for their private lessons in accordance with the general procedures set by the State Tax Inspectorate. They can register as a private business or acquire a business certificate (the latter is a simpler procedure). By 2004, just 834 educators had obtained business certificates for freelance teaching, and another 782 in 2005 (Silova, Budiene and Bray, 2006_[65]). In 2010, teachers made up 3.5% of the Lithuanian active population, including a total of 33 097 pedagogical staff in general education (Shewbridge et al., 2016_[66]). Various reasons have been advanced for this in both Lithuania and other countries in the region: a lack of legal enforcement; a lack of implementation mechanisms; and a lack of tax incentives. As a result, the private tutoring market still goes largely unregulated.

In addition, making more reliable and accurate information about the services being offered and their likely impact would allow parents and students to make better-informed choices. This would mean systematically measuring the extent and the impact of the sector and disseminating the results widely. Such a study could go beyond simply measuring uptake to

examine the curriculum, financing, management and sociological aspects of the sector (Bray, Kwo and Jokić, 2016_[67]).

Few countries have chosen to actively encourage the shadow education sector, but several have designed policies to provide public alternatives to private shadow education, particularly for disadvantaged students. After-hours or weekend instruction in public schools have been trialled in Japan and offered systematically in Korea to attract students and reduce the declining reputation of public schools. Between their introduction in 2006 and 2011, overall participation in free after-school supplementary tuition in Korea rose from 43% to 65%, with higher rates of participation from lower-income and rural populations (OECD, 2014_[50]). In Singapore and the United Kingdom, specific after-school programmes have been targeted at ethnic groups where imbalances in educational achievement have been observed (Bray and Lykins, 2012_[49]; The Sutton Trust, 2014_[68]). New technologies can be deployed to provide supplementary tutoring (see Box 3.3). This has already been embraced by private providers.

3.2.4. Responding to disadvantaged students and schools' challenges

A policy imperative that the OECD review team frequently encountered in Greece is that the government should not behave equally towards the unequal. While there is evidence on the need to support learning opportunities for all through national standards and strong quality public provision, evidence also points to the effectiveness of targeting interventions to where they are needed most. Greece has particular challenges – including isolated schools, low socio-economic profile schools, an influx of refugee students – that have been focus of policy initiatives, such as:

- the development of all-day schools that provide extra support for struggling students
- Education Priority Zones (ZEP)
- Efforts to reduce early school leaving.

These are reviewed below, as they represent challenges to a system already struggling for resources, and require continued focus and support.

All-day schools

“All-day” schools were instituted from 1989 in Greece and funded with European Union structural funds. While in the early stages the aim was to help parents, especially mothers, to enter the labour market this later shifted to encompass educational goals as well (OECD, 2017_[69]). Two main types are prevalent (Thoidis and Chaniotakis, 2015_[70]):

- The "classic" all-day school (since 2002): students can stay at school after 2 p.m. in order to complete their homework, take part in creative activities, and rest (about 60% of schools in 2016 – see Table 3.3). All-day school programmes were extended to the pre-primary level in 2009. All-day kindergartens operate on an extended timetable for at least eight hours per day (compared to four hours a day in the case of “regular” kindergartens). There have also been initiatives to ensure equitable access to primary school for children with special needs, such as parallel support classes in mainstream kindergartens and the establishment of special education kindergartens, and measures to reduce geographical disadvantages (Koutsogeorgopoulou, 2009_[71]).
- The "new" all-day school was progressively rolled out from 2010 to 11, as part of the "New School" reform package (about 29% of schools – see Table 3.3). Children

may arrive as early as 7 a.m. and leave as late as 4 p.m., during which time they can benefit from extra study support (individual and group). Attendance is compulsory until 3:30 p.m. The curriculum has been enriched with foreign language classes, art, drama, and physical education. The duration of the school year was also slightly extended (Ministry of Education, Research and Religious Affairs, 2011_[72]).

The remaining 10% of primary schools, which are schools that have fewer than six classes, are not all-day schools.

Table 3.3. Types of Greek primary schools in school year 2015/16

	All primary schools		Of which: schools with more than three grades	
	Number of schools	%	Number of schools	%
"Classic" all-day	2 761	61%	2 218	60%
"New" all-day with revised cohesive programme	1 337	29%	1 332	36%
Not all-day (of any type)	469	10%	141	4%
Total number of primary schools	4 567	100%	3 691	100%

Source: Institute of Educational Policy (2016_[73]), "Experts' Reports", Report prepared by the IEP and academic experts for the OECD review team, October 2016.

In the first half of 2016 the government advanced new proposals that "classic" and "new" all-day schools be amalgamated into a "unified" type of all-day primary school that would include the vast majority of all primary schools, and which would be in operation from the next school year (2016/17). It was proposed that in this type of school, children would not arrive earlier than 8 a.m. but could leave as late as 4 p.m. Attendance would be compulsory until 1:15 p.m. in a regular curriculum enriched with classes in English language teaching, information and communication technology (ICT), art, drama, and physical education in the afternoon classes. The new enriched curriculum implies less time for more conventional subjects, and therefore a shift in the teaching load from primary teachers to specialist secondary teachers (thereby helping to employ the oversupply of secondary teachers).

Teachers, students and parents reported that the enriched curriculum, with new subjects, in the "new" all-day schools, was very helpful, especially for students from low-income families (see for example INE-GSEE (2003_[74]) and Kontorli (2010_[75])). This was less the case for more affluent families as they would typically have access to these additional subjects (ICT and foreign language learning) through *frontistiria* and private tutors.

Undertaking the all-day primary school was reportedly welcomed for a number of reasons:

- The enriched curriculum helped students to become familiar with new courses (arts education, ICT, foreign languages).
- The reform met parental expectations to find solutions to the daily problems linked to the ongoing economic crisis. It seems to conform to a desired pattern of school: the students study to a certain extent at school (not at home), they tend to socialise in an age-appropriate environment, and they develop new skills and competencies (Institute of Educational Policy, 2016_[73]).

But a number of problems are also reported with the initial implementation of all-day schools (Gkoratsa, 2013_[76]). These include weak integration of afternoon provision, especially in the "classic" all-day schools (Thoidis and Chaniotakis, 2015_[70]); insufficient

infrastructure to support the new activities; teacher recruitment difficulties; inadequate homework support (Gkoratsa, 2013_[76]); dropout during the school year reported in the "classic" model; and, students not staying at school for the afternoon classes (Institute of Educational Policy, 2015_[77]).

Certain gaps between policy and practice in the operation of the "all-day" school have been identified: while the "all-day" school aimed to achieve certain pedagogical and social aims, as described in the policy documents of the MofERRA. In practice, only a few of these aims, mainly related to the social dimension of the "all-day" school, could satisfactorily be said to have been achieved so far. The all-day school in its initial form did not achieve such pedagogical aims as homework completion at school (Gkoratsa, 2013_[76]).

In May 2017, a law change meant that any school, including kindergartens, could become an all-day school. This replaced the system of self-nomination that had existed to that point. This also eliminated the risk that better organised and equipped schools were more likely to have the potential to become new all-day schools, thereby widening the gap between new all-day schools and their students and other less favoured schools (OECD, 2017_[69]).

Reliance on European Structural Funds and the use of substitute teachers to deliver the programme has led to an unstable teacher workforce. Some schools reported having only managed to recruit specialist teachers for the afternoon sessions three months after the beginning of the school year. In the new all-day schools, teachers have more curricular freedom, but reportedly little training in how to use it (Institute of Educational Policy, 2016_[73]). Specialised subjects are often delivered by teachers trained as secondary school teachers (and therefore not always having the adequate pedagogical training to teach primary school-age children). Nevertheless, as a result, primary school students were exposed to such disciplines as drama studies, ICT, and art which were previously restricted to those attending one of the 1 337 EAEP primary schools (Ministry of Education, Research and Religious Affairs, 2018_[78]).

Education Priority Zones (ZEP) provide targeted support

Allocating more resources to disadvantaged areas has been a common policy response in many OECD countries. Following the passage of a Law on Education Priority Zones (ZEP) (Law 3879/2010) in 2010, the Ministry issued a Ministerial Decision to define the localities where this initiative would be applied. The regions were chosen presenting the characteristics of the Education Priority Zones (ZEP). These zones include primary and secondary education schools in areas where the basic indicators of school integration (such as well-being, educational level of adults aged 33-43, relative dangers of poverty, and total educational levels) were all low, or where there were a high proportion of foreign, Roma or other minorities in the student populations (Eurydice, 2014_[23]).

Education Priority Zones (ZEP), as deployed in Greece, are based on the notion of positive discrimination, and promote a holistic approach to education (with the support to, and from the local community). They constitute an effort to create a permanent institution in the context of the Greek education system in which districts and schools related to Sensitive Social Groups (SSG) will be incorporated based on local needs (Eurydice, 2014_[23]).

In order to support primary and secondary education schools that are incorporated in Education Priority Zones (ZEP), the following actions have been implemented:

- combating current high levels of school failure of repatriate and foreign students in Greek schools, so as to guarantee, as far as possible, equal education of these

groups compared with their native counterparts, and contributing to their social integration

- implementing intercultural education actions in secondary education, through the reinforcement of international co-operation through ZEP Enhancement Coaching Courses for students coming from sensitive social groups (SSG)
- implementing educational actions with a special emphasis on culture and with support of the integration in primary schools of students coming from SSG.

During 2013 and 2014, the scheme was expanded to more than 1 500 schools, mostly primary, to cover around 190 000 students. At the same time, further training of teachers was instituted and nutrition provisions added to the programme (Koutsogeorgopoulou et al., 2014_[79]). These were supported by policy measures, including the operation of reception and remedial classes. From 2018, ZEP Reception Classes for children of upper secondary school age will be implemented (Ministerial Decree 3727/2017).

However, the experience of other countries with ZEPs has been mixed. In France, the *Zones d'Education Prioritaire* (ZEPs) have for the past 20 years used positive discrimination to address special needs of students in disadvantaged areas where there are a high proportion of immigrant students. Additional funds support smaller classes, extra lessons and financial incentives for teachers. There are also, more generally, throughout the country, special arrangements aimed at quickly integrating new immigrant students into school life: schools are to provide French language, but not mother-tongue support (OECD, 2004_[80])

It is hard to determine the effect of the ZEP schools overall. One study found that in France the ZEP had no evident impact on student academic achievement (Bénabou, Kramarz and Prost, 2009_[81]). Where ZEP schools have succeeded in raising the achievement potential of their students there has been discernible mutual co-operation among staff, coherence in their activities, a strong and dynamic school management that emphasise school performance, and classes with a relatively constant group of teachers and students to enhance pedagogic continuity (OECD, 2004_[80]). A high turnover of teachers can lead to declining achievement among students. As high-quality teachers either leave or avoid schools with low-performing students, the low-quality teachers, who themselves often leave, leads to low-performing students (Hanushek, Kain and Rivkin, 2001_[82]).

Portugal instituted two programmes to address this issue: “Domains for Priority Intervention” (TEIP), a public venture but one that envisaged the development of partnerships with different local actors (local authorities, associations, companies, social institutions), and the EPIS Programme (Entrepreneurs for Social Inclusion), which supported schools with high dropout rates. The first, in a revised form re-launched in 2010, included: a mandatory educational project for each school or consortia of schools, agreed with the central administration; periodical assessments of the results in different domains (under-achievement and dropout rates, student assiduousness and behaviour); pedagogical support; and, follow-up from specialised ministerial teams in curricular and pedagogical innovation. This has shown some promising results, in that school dropout became almost residual in TEIP schools (0,4%); and school failure rates progressively decreased and in 2010 were practically identical to national rates – but only after four years of uninterrupted implementation (Dias and Tomás, 2012_[83]; Dias, 2014_[84]). Subsequent evaluation has shown that policy choices of this targeted programme were not fully conducive to reaching the schools which needed it the most (see Box 3.4).

Therefore, in order to properly judge the success or otherwise of the ZEP in Greece, concrete educational outcomes, such as completing the full three years of upper secondary

education, need to be analysed. Only then could measures of resilience be identified, implemented and published before making decisions about the programme's future.

Students in isolated areas struggle

While in 2011 around 40.6% of Greeks lived in the 10% of regions with the largest population, the total population living in urban or suburban areas was 76.6% – up from 72.8% in 2001 (OECD, 2017_[85]). This long-observed drift to the cities appears to have reached its peak (Eurydice, 2016_[86]). Nevertheless, in order to maintain social cohesion, the government continues to maintain schools in even the most isolated areas. While still less than the European average, these students are much more likely to leave school early: nationally 10.4% who lived in rural areas did so, while the comparable rate in urban areas was just 3.5% (Eurostat, 2017_[87]). There are some regional and programme variations (Table 3.4) and some rural/urban differences, as well as a much higher rate in vocational education and training programmes.

Table 3.4. Early school leaving rates by region

High levels in VET programmes, in rural, and semi-urban areas

	Primary (in %)		Lower Secondary (in %)		Upper Secondary (General) (in %)		Upper Secondary (VET) (in %)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Attica	2.06	1.71	4.89	3.33	1.87	1.80	12.71	11.79
Central Greece	2.49	2.23	4.45	3.02	2.82	1.68	15.51	13.36
Central Macedonia	1.06	1.12	4.17	3.28	1.86	1.71	10.79	8.01
Crete	1.75	1.81	5.10	3.05	2.97	2.43	12.34	10.67
Eastern Macedonia and Thrace	2.80	3.12	9.06	8.36	2.10	2.13	14.81	10.44
Epirus	1.77	2.01	2.11	2.15	1.61	1.24	10.10	8.45
Ionian Islands	1.32	1.27	3.61	3.03	2.21	2.70	9.30	14.81
North Aegean	1.74	0.97	3.98	2.40	0.83	1.21	7.93	7.56
Peloponnese	2.00	2.99	5.65	4.26	2.26	1.90	9.67	9.45
South Aegean	1.20	1.60	3.02	1.82	3.35	1.98	9.21	7.37
Thessaly	1.03	0.96	5.24	4.03	2.22	1.32	10.31	13.64
Western Greece	2.93	2.83	5.33	3.98	2.25	1.58	10.44	8.98
Western Macedonia	0.45	0.66	1.17	1.7	1.45	1.02	6.41	7.82
TOTAL	1.81	1.76	4.82	3.58	2.08	1.77	11.45	9.99

Note: All values are percentages. Early school leaving was measured according to the Eurostat definition: people aged 18-24 who have completed, at most, lower secondary education but are not involved in further education or training; the indicator “early leavers from education and training” is expressed as a percentage of the people aged 18-24 who meet such criteria, out of the total population aged 18-24.

Source: Institute of Educational Policy (2016_[73]), *Greek Experts' Preliminary Reports*, Institute of Educational Policy, Unpublished.

The IEP data presented in Table 3.4 reveal that urban areas have a lower rate of early school leaving compared with semi-urban and rural regions and that vocational education and training programmes far outstrip other programmes in terms of high rates of early school leaving. Additional data shows that overall, some 40% of early school leavers come from the Attica region where the dropout rate (7.8%) was higher than the national average (6.5%) and in in West Attica higher still (15.1%). The regions of Eastern Macedonia and Thrace have unusually high rates of school dropout at all levels and in all types of schools. By contrast, the region of Western Macedonia shows the lowest dropout rates followed by

the region of Epirus, where rates fell by half between 2005 and 2015. Similar improvement occurred and in the regions of the North and South Aegean (Institute of Educational Policy, 2017^[88]).

Remote rural areas are often faced with the compound problems associated with small school size and their geographic isolation, which limits the scope for inter-school co-operation, clusters or consolidation. A range of strategies to provide targeted support have been deployed in other countries facing similar challenges. In Portugal, there was an important school consolidation effort, resulting in the creation of school clusters (Box 3.4). Recognising the higher per-student cost faced by small remote schools and their difficulty to attract specialist teachers, some countries provide them with dedicated compensatory funding or targeted programmes to finance professional development and collaboration, or to improve transport arrangements where distance constitutes a significant barrier for school attendance and enrolment. Greece has long-standing statutory arrangements for the latter, and already undertook mergers of schools, combined with the daily transportation of students to consolidated schools in the 2010-14 period. In the current fiscal conditions compensatory funding is unlikely to be available and there has been a reduction in the overall number of schools by 1 631 (Roussakis, 2017^[4]).

An OECD study on the use of resources has looked into the use of information and communication technologies (ICT) to alleviate the difficulties faced by remote rural schools. They can offer a way to expand educational access and broaden curricula through distance education and other forms of ICT-supported learning. In addition, web-based solutions have in some countries improved teachers' access to learning materials and expanded their opportunities for professional exchange (Santiago et al., 2016^[89]), but evidence highlights the importance of building capacity among teachers and principals to develop appropriate methods for ICT-based instruction and apply these techniques effectively (Avvisati et al., 2013^[90]; OECD, 2015^[91]). The MENTEP (MENToring Technology-Enhanced Pedagogy) project, which addresses the need in Europe for teachers to innovate using ICT in their classroom and for improved data on teachers' digital competency, could be of prime interest in this regard (European Commission, 2017^[92]). Greece can explore different options to ensure that students living in remote or isolated areas have quality educational opportunities available.

Box 3.4. Implementing school clusters in Portugal

In 2005/06, Portugal implemented a major reform to consolidate its school network to address its inefficiency and regional inequalities. Prior to the reform, rural areas were dominated by small schools with poor facilities and low performance while schools in urban areas were often overcrowded and relied on double shifts to deliver the curriculum. The Ministry of Education, in co-operation with local governments and school executive boards closed down small, underperforming schools with above-average grade repetition rates while simultaneously providing the affected local governments with financial support to build and invest in new school centres and provide funding for school transport. Many small schools were replaced by school centres with a minimum of 150 students at more than one level of education. These all-day schools also offered extracurricular activities.

Besides rationalising the administration, management and use of school resources, the introduction of school clusters also aimed to ease the transition between different levels of compulsory education. Portuguese school clusters therefore often include two or more

levels of compulsory education, comprising pre-school establishments and at least one education cycle within a single organisation for administration and management.

As a result, transitions between different levels of education in different geographic areas were eased, the overall efficiency of the system improved, the isolation of rural teachers was lessened, improved educational opportunities for disadvantaged students in isolated areas were provided, and a collaborative approach between the Ministry of Education (centrally and regionally), municipalities, schools and other stakeholders was fostered.

Several features of the reform have been identified as having contributed to the success of the reorganisation, including that: 1) The reform was guided by a clear vision and criteria; that specified which schools should close, for what reasons, and what would replace them. 2) It was recognised that parents needed to be convinced that the reform would have positive outcomes for them and their children. Incentives, including free transportation, were provided to facilitate this. 3) Municipalities supported cluster hubs and assumed leadership of the new system.

Sources: Matthews, P. et al. (2009_[93]), Policy measures implemented in the first cycle of compulsory education in Portugal (International evaluation), Ministry of Education Editorial, Lisbon, <http://www.oecd.org/education/school/42065538.pdf>; Ares Abalde, M. (2014_[94]), “School Size Policies: A Literature Review”, OECD Education Working Papers, No. 106, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5jxt472ddkjl-en>.

Early school leaving occurs among particular groups

“Student dropout” can be more accurately described as “school failure” (Faubert, 2012_[95]). It is a complex process of disengagement that can be explained by a variety of factors, such as academic performance, students’ personal and family background, education policies and labour market conditions. In countries in which the incidence of under-qualification is low (such as the Czech Republic and the United Kingdom), those who have not completed upper secondary school are substantially over-represented among the unemployed. However, in countries where there is a high proportion of young people with less than an upper secondary level of education, those with low qualifications either suffer relatively little disadvantage in the labour market compared to those who have completed upper secondary education, or have even had a positive advantage in the labour market when compared to those who have completed upper secondary education. This, historically, has been found to be the case in Italy, Portugal and certainly in Greece (OECD, 2000_[96]).

EU countries have committed to reducing the average share of early school leavers to less than 10% by 2020. Repeated studies have shown that there is no silver bullet that can reduce school failure and improve equity. Instead, an interlaced approach of policies and practices at both the school and classroom level has been found to be effective, some intended to focus on the core of teaching and learning (teaching practices, curriculum, assessment, school leadership, data gathering and use) while others address support necessary to maintain teacher focus on student learning (professional learning, school and classroom size, and interventions that build resiliency). Crucially, these initiatives must form part of a larger, aligned design of efforts right across all levels of the education system: a vision for education in Greece (Faubert, 2012_[95]).

At just 6.2%, the official early school leaving rate (those aged 18-24 who had left school with less than upper secondary education and did not participate in any further education or training) was below the EU-28 average of 10.7% in 2016. This is down from the 2007 level

of 14.3% and 18.2% in 2000 (Eurostat, 2017_[87]). Still, there are differences across population subgroups:

- Students with an immigrant background: As early as 2007 studies found that nearly half of the early school leavers had an immigrant background, above the EU average (Koutsogeorgopoulou, 2009_[71]; European Commission, 2011_[97]) and those rates have not diminished. While early school leaving among foreign-born students has more than halved since 2012, at 18.1 % in 2017, it is much higher than among native-born students (5.5%) (European Commission, 2017_[98]).
- Students repeating: Also relevant to note is that Greek students in a classroom with students of a different age, or who are repeating a school grade, have a much higher level of school dropout than the rest of the student population (Institute of Educational Policy, 2017_[88]).
- Boys: In data for the 2015/16 school year, it was found that the gender dimension manifested itself mainly in secondary education, where the rate of early school leaving for boys was much higher than for girls.
- Some regions have more pronounced dropout rates (Table 3.4).

In addition, the Institute of Education Policy in Greece reports that data on early school leaving is difficult to secure and while those who begin school are often monitored, there may even be a small cohort of children who never enter the education system and may not be captured by official statistics (Institute of Educational Policy, 2017_[88]).

Many countries work to reduce early school leaving by identifying those at risk early on and providing preventive support, while conversely, many school systems find it difficult to anticipate which students will struggle as they advance through the educational system (OECD, 2012_[22]). This prevents them from both providing intensive, individualised support to those students and identifying systemic or organisational challenges for certain profiles of students. Therefore, a first step is to develop early-warning indicators to identify students who are at risk for grade repetition and dropout. Identified students can be targeted early with necessary support so that they can be put back on track before the learning gaps widen.

3.2.5. The case of refugee students

With only 6.3% of its population being of foreign origin in 2015, Greece counted among the European countries with the smallest immigrant population (OECD, 2017_[6]). The recent waves of immigration were thus particularly significant for the country, bringing in nearly one million refugees in 2015 alone (UNHCR, 2017_[5]). During this period Greece was often a transition territory for a number of immigrants headed for other European countries. However, with new asylum applications amounting to almost 50 000 in 2016, a surge of 338% from the previous year, Greece has a considerable, unexpected population needing education (OECD, 2017_[6]) (UNHCR, 2018_[99]). The MofERRA, in co-operation with the United Nations High Commissioner for Refugees (UNHCR), has estimated that there were at least 12 000 school-age (aged 6-17) refugee children overall in Greece at the beginning of the 2017/18 school year. Between January and September 2017 just over 7 000 children arrived in Greece by sea, mostly from the Syrian Arab Republic, Iraq, Afghanistan and Kuwait. This included 811 (11%) unaccompanied and separated children (UASC). In September 2017, some 1 180 unaccompanied children were in 54 shelters across Greece, with 44% attending school or formal education. While this represents a significant decrease compared to the first half of 2016, when 60 089 children arrived (UNHCR, 2017_[5]), it remains a major challenge for the country.

Refugees were initially received in temporary camps, but efforts were later made to move them into other types of accommodation, such as hotels and apartments in urban areas. By the second half of 2017, UNHCR estimated that the refugee and immigrant population on temporary accommodation sites had dropped from 51% to 34%, while residence in hotels and apartments had increased from 36% to 57% (UNHCR, 2017_[7]). In 2016, Greek volunteers were awarded the Nansen Refugee Award by UNHCR. Volunteers of "The Hellenic Rescue Team", were recognised for their tireless voluntary efforts to aid refugees arriving in Greece in the period, with special recognition of Efi Latsoudi for her work at "PIKPA village" on the island of Lesbos, (UNHCR, 2016_[100]; UNHCR, 2016_[101]).

The Greek Government had to respond to this situation and provide educational facilities, responding to the Constitutional right for all children to access school education in Greece, without distinction (Hellenic Republic, 2008_[102])³. They had to make sure they had access to schools, and prepare them for the transition into a formal education system, either in Greece or in their next host country (Papademetriou, 2016_[103]).

Supporting education for refugees requires sustainable resourcing

The Greek government reacted quickly to the massive refugee influxes of 2014-15. The MofERRA first collaborated with the army to set up camps and co-ordinated the efforts of other actors such as NGOs and UN Agencies to develop basic services for school-aged refugee children. The Ministry established a scientific committee on educational affairs to record, co-ordinate and support refugee education initiatives in the camps. With a reduction in flows, the issue shifted to focus on how to systematise the actions adopted for refugee education. In February 2016, the MofERRA published an action plan on how it proposed to deal with the refugee influx. The plan included psychosocial support of children and their parents, provision of basic literacy skills, and basic training of refugees prior to their relocation to other European countries (Ministry of Education Research and Religious Affairs, 2017_[2]).

The Ministry's main goal remains to integrate refugee students into the formal education system in Greece, or to prepare them to integrate into the formal system in their next host country. With this goal in mind, the Ministry piloted several initiatives during the 2016/17 school year:

- The Ministry initially supported the creation of kindergartens on the camp sites for children four to five years old to attend. Children aged 6-15 were able to enrol in afternoon reception classes in selected public schools neighbouring the camps. Approximately 3 500 school-aged children (aged 6-16) were in formal education during the 2016/17 school year (29% of 12 000 total) (UNHCR, 2017_[7]).
- Reception School Annexes for Refugee Education (RSARE) were established as a flexible intervention scheme in school districts where refugees and migrants live. Appointed and trained by the MofERRA, Refugee Education Coordinators (RECs) represent the public school system and bridge the gap between refugee families and schools. RSARE were established thanks to an inter-ministerial effort by the MofERRA, the Ministry of Health and the Ministry of Migration Policy. By the beginning of the 2017/18 school year, 112 RSARE had been established, reaching 3 000 students in 33 accommodation sites (Aroni, 2017_[104]).
- The MofERRA has worked with the Institute for Education Policy (IEP) to develop an inclusive curriculum for reception classes in RSARE. The curriculum offers English and Greek language courses, mathematics, arts, physical education and computer science (Aroni, 2017_[104]). To facilitate implementation, teaching staff in

RSARE use adapted teaching materials such as guides and textbooks to teach Greek as a second language. For many students, reaching the appropriate level to study other subjects in a foreign language can take up to seven years (OECD, 2015, p. 85_[105]). This scheme's reported success was founded on the autonomy it gives to the actors on the ground to take action according to local priorities, while providing a general framework for their actions. Refugee Education Co-ordinators that the OECD review team met were particularly pleased with the work that had been accomplished with minimal means.

- Children aged 4-15 living in other accommodation such as hotels or apartments were eligible to enrol in morning classes in selected public schools nearby. Some 2 493 of these children were enrolled in schools throughout Greece at all levels of education at the beginning of the 2017/18 school year; 2 360 more living in refugee camps were also enrolled (Ministry of Education, 2017_[106]). When possible intercultural schools⁴ and Education Priority Zones (ZEP) were selected, as both have existing initiatives to integrate immigrant children into the education system.

In addition to the Ministry's plan for integrating refugee children into formal education, NGOs and other agencies offered non-formal education in 95% of the refugee camps during the second half of 2017 (UNHCR, 2017_[7]). These non-governmental actors provide teaching in languages such as Farsi and Arabic, delivered by volunteer international teachers, as well as creative and sporting activities (Aroni, 2017_[104]). For instance, SIF has been providing summer school classes for children in the Malakasas camp outside Athens, which the OECD review team visited in 2017.

Communities and school staff may face resistance when integrating refugee children into public schools. Reports to the MofERRA working group on refugee education showed that there were some instances of resistance from local communities to integrating refugee children into local schools of a few municipalities, especially in areas of low socio-economic status (Aroni, 2017_[104]). The OECD review team was told that most communities whose local school opened afternoon classes for refugee students have been very welcoming to them. Already existing initiatives to integrate immigrant students, such as schools for intercultural education and Educational Priority Zones, have assisted in this regard. The Ministry's three-year plan for education includes a reform of the pre-school curricula with this in mind. The aim is to develop diversified pedagogy from early on, getting children used to intercultural schooling and teachers to account for the specific needs of refugee, immigrant and vulnerable students (Ministry of Education Scientific Committee for the Support of Refugee Children, 2017_[107]). Nevertheless, Greek principals have generally considered that ethnic diversity hinders learning (OECD, 2015_[105]).

The challenge remains to integrate refugee students to the formal education system in Greece, or prepare them to integrate the formal system in their next host country. A pressing question is that of resources, since most of the initiatives in the camps have been funded sporadically, usually by European Commission grants (European Commission, 2016_[108]). The current plan to integrate refugee students requires finding sustainability in resources. During the OECD review team's visit to a refugee camp outside of Athens, the co-ordinators remained unsure whether they would get funding to continue their work in the long term. There is no clear assessment of the costs of the current initiatives to integrate refugee students into the formal school sector. Indeed more students involve extra costs to local schools, also because immigrant students may require extra classes in Greek as a second language. Recent cuts in regional budgets for education, which the OECD review team were told had decreased by 5% in 2015, are thus of particular concern.

Refugee students need to learn Greek to do well at school

A major issue has been language: refugee students typically do not speak Greek upon arrival and require some time to reach a level where they are able to learn other subjects in the language. Even for students with an immigrant background who have integrated into the formal system, speaking the language of assessment at home has proved to affect academic performance. Almost 60% of first-generation immigrant students in Greece don't speak the language of assessment at home, which contributes to the 20-point difference in reading performance between immigrant and non-immigrant students (OECD, 2015_[105]).

The balance between bringing non-native speakers up to a sufficient level in Greek language where they are able to study other subjects and integrating them into the regular education system is difficult to strike. Students interviewed by UNICEF and REACH explained that the language barrier was the main reason they dropped out of formal education. An unaccompanied 16-year-old from Iraq reported that:

I came here to continue studying but it's not good, because it is all in Greek and most of it we don't understand. For three months I used to go – they registered me – but nothing changed in those three months and I quit, because I went to school, I woke up at seven a.m. and I just came back. I learnt nothing there (UNHCR, UNICEF and IOM, 2017_[109]).

Focusing only on Greek as a second language is not an option: refugee children need to learn not only about other subjects but to be integrated into age-appropriate classes as soon as possible (OECD, 2010_[110]). The Institute for Education Policy's curriculum for RSAREs could therefore be extended to refugee children who already attend morning classes in regular schools, where needed.

Other countries have found successful means to integrate immigrant students. In Cardiff, Wales, for instance, 70% of the students at the Cathays High School speak English as an additional language. In order to prevent them from lagging behind in academic subjects, the school set up an ambitious programme where children who need support in English start the school year earlier with intensive language classes. As the regular year resumes, they are integrated to mainstream classes in which basic English is sufficient, such as sports, arts or mathematics for six weeks. Non-native students are then expected to join all mainstream classes within 12 weeks of their arrival at school. Cathays High School collaborates with members of immigrant communities to serve as translators and improve the school's relationship with parents (Estyn, 2013_[111]).

There are plans to integrate refugees in schools

Multiculturalism in education has been defined as adapting the existing curriculum to racial, ethnic, and cultural diversity; fostering non-discriminatory attitudes and values through explicit instruction; adapting teaching strategies by recognising diverse ways of learning and knowing; adopting multiple perspectives in the construction of knowledge; and restructuring school culture and organisation to reflect diversity (Banks, 1993_[112]). The MofERRA has outlined plans to reform pre-school curriculum to develop intercultural learning from an early age (Ministry of Education Research and Religious Affairs, 2017_[2]). This is an encouraging first step. Plans would need to be rolled out in the primary and secondary curricula and support provided to teachers to implement the new curricula effectively. Already existing initiatives to integrate immigrant students, such as schools for intercultural education and Education Priority Zones (ZEP) have assisted in this regard (Ministry of Education Scientific Committee for the Support of Refugee Children, 2017_[107]; Aroni, 2017_[104]).

The OECD review team heard that at present there is no mechanism in the Ministry's allocation of teachers to school units to assign teachers who have worked with refugee children to school units where these skills are needed, or to acknowledge this experience in the teacher's career development. The OECD review team also heard that these vulnerable groups had frequent changes of teacher, many of whom had no experience of working with refugees.

Some of the best-performing countries in academic outcomes have been very successful at making it easier for immigrant students to perform well in both language and mainstream classes. Ireland developed Intercultural Guidelines for primary school teachers and beyond, to help them integrate language learning in mainstream classes. The guidelines provide concrete tips such as using visual aids, or putting the lessons in context to help non-native speakers understand (OECD, 2010_[110]).

The children of the migrants that applied to stay in Greece represent a cultural and economic resource for the country. In order to successfully integrate students with an immigrant background, valuing their mother tongue can be an essential component of a fully intercultural education, and ensure that immigrant children feel that their cultural and language background is appreciated as much as that of the majority (Brind, Harper and Moore, 2008_[113]). The Greek system is historically based on equality (providing the same education to all), which does not allow for taking into account the individual needs of learners. Interviews carried out with various stakeholders during the review visits indicated that catering to specific individual needs would require more resources than schools currently have available.

Resources may be focused in schools with a high concentration of immigrant students

Sending Refugee Education Co-ordinators to drive local initiatives has shown some promising results. However, given the tight budgetary situation, the government needs to find a way to secure funding so that these initiatives can be sustained. A promising strategy has been to pool resources allocated to Education Priority Zones (ZEP) schools. These already receive complementary funding for students with special needs, but their effectiveness has not been evaluated. The Ministry should be careful of limiting refugee education programme to schools in disadvantaged areas so as not to create enclave schools (OECD, 2015_[105]).

Starting with schools in existing ZEP, the Ministry could use these pilots as model schools for intercultural teaching and immigrant student integration. This means that refugee students would at first be concentrated in a small number of schools. Successful pilots can lead to the roll out of the integration programme to more schools, building capacity for immigrant student integration throughout the education system.

3.3. Policy recommendation: Support learning for all students

Greece's commitment to equity can be balanced by raising efforts to maintain and improve equity and quality across the board while focusing efforts on the more disadvantaged. More concretely, a number of policy options can be proposed to ensure that all students can reach higher levels of performance. This can be achieved by raising expectations and adapting the education system to the future building on the current curricular reform, and reducing the impact of the high-stakes Panhellenic examinations, and reviewing the impact of shadow

education on the public system. At the same time, it will be important to continue to focus on targeted interventions for disadvantaged students and schools.

3.3.1. Raise student learning opportunities for all

A commitment to equity and quality in education requires ensuring that students have the knowledge, skills and competencies to succeed in tomorrow's world, that their individual personal or social circumstances do not present obstacles to achieving their educational potential (i.e. that it is fair), and that all individuals have at least a basic minimum skill level (i.e. that it is inclusive). To achieve greater equity and quality in education, it will be important to ensure that planned curricular reforms are linked to an overall vision for education focused on student learning for the future. For this, schools need to maintain high expectations for every student, and to support them in meeting those. At the same time, efforts to alleviate the high stakes associated with the Panhellenic university admissions examination and to ensure that assessment provides a more well-rounded view of student achievement should be supported.

Link current plans to review the curriculum to an overall vision for education

Under the national three-year plan for education, new curricula are currently being developed for many subjects, which will be the subject of a national dialogue and discussion in committees overseen by the Institute for Education Policy (Ministry of Education Research and Religious Affairs, 2017_[114]). It would be important for Greece to take this opportunity to ensure that the curricula align and focuses on preparing Greek students to become lifelong learners – that is, to prepare them for tackling challenges that may not yet be apparent, and to use technologies that may have not even been invented. These reforms would benefit from being linked to a clearly articulated overall vision for education focused on student learning and well-being for the future. These next steps will be vital for setting a clear roadmap for implementation as well as a realistic set of measures by which progress towards these goals can be judged.

As part of this, it will be important for Greek schools to make students active participants in their learning, and especially important for both high and low performers. Contemporary research on learning has revealed that schools should set clear expectations, demand hard work and challenge students (without overloading them), and use assessment strategies consistent with these expectations, including a strong emphasis on formative assessment. Each learner needs to be sufficiently challenged to reach above their existing level and capacity (Dumont, Istance and Benavides, 2010_[37]). Curriculum should set high expectations for every child, regardless of their levels of disadvantage and the achievement levels with which they enter the school.

Link plans to reform upper secondary school to the overall vision for education focused on student learning and well-being

International evidence shows that upper secondary school is a key level of education that has some specific challenges: it may have too much or too little choice; it represents a new learning environment prior to transition into tertiary education, vocational or technical education or the labour market. The three-year upper secondary general education track that most students opt for in Greece is dominated by the Panhellenic examinations that students take in their final year (Eurydice, 2016_[18]).

The current reorganisation of secondary education has, as central aims, the upgrading of educational roles, autonomy and independence at every level of the school system. In the

context of the above aims, new legislation was still being elaborated as this volume went to press. This included a new law on upper secondary education and new university entrance examinations, which is due to be presented to Parliament in the course of 2018 (Ministry of Education Research and Religious Affairs, 2017_[2]). As with other proposed reforms, the plans would enormously benefit from being linked to a clearly articulated overall vision for education focused on student learning and well-being.

Balance high-stakes entry tests into tertiary education

Drawing on a wider range of assessment information than a single national exam to make judgements about learning progress is widely considered a fairer and more reliable method and can also provide safeguards against the well-documented negative externalities of the Panhellenic examinations (OECD, 2013_[24]). Decreasing the importance of these exams can be supported further by the fact that its legitimacy as an indicator of ability can be called into question, especially when certain groups are systematically disadvantaged in the admissions process if they cannot afford supplementary tutoring (OECD, 2013_[24]; OECD, 2014_[50]). Despite this evidence the Panhellenic examinations have been commonly praised as being among the more fair evaluations of the system, so a communication strategy on the benefits of new assessment approaches may be needed. It will also be important to update assessment strategies and methods in order to measure effectively adapt to new curricular changes for students aiming to enter tertiary education, and to measure knowledge, skills and attitudes (competencies) of a modern knowledge society.

The Ministry and its advisory bodies have put forth proposals to increase teachers' assessment roles. These include support for classroom-based formative assessment (that is, regular assessment of student progress to identify learning needs) and a stronger summative assessment role for teachers in scores used to make university admissions decisions (with 20% to be based on teachers' scores, and 80% to be based on the Panhellenic examinations). These approaches have the potential to support greater equity and quality of student outcomes, as they would not only help to lower the stakes of the Panhellenic but also strengthen the validity of the overall assessment, while “re-valorising” the assessment roles of teachers.

3.3.2. Mitigate the impact of shadow education

Shadow education has an outsized place in the Greek education landscape, and is, in fact, not in the shadows at all. It also represents an outsize investment for families, particularly lower income households. To address the imbalance of school and shadow education, it will be important to first improve the quality of in-school lessons, as well as after-school support for disadvantaged learners. At the same time, the government can require *frontistiria* to participate in quality assurance processes.

Improve the quality of in-school lessons

The demand for shadow education could be addressed at its source by raising the quality of schooling (Lee, Lee and Jang, 2010_[63]). Where possible, providing supplementary classes, if these are of sufficient quality, may also reduce the demand for shadow education. But before doing so, Greece may wish to consider systematically measuring the extent and the impact of the sector and disseminating the results widely. Such a study could go beyond simply measuring uptake to examine the curriculum, financing, management and sociological aspects of the sector and why previous efforts for additional teaching support did not succeed (Bray, Kwo and Jokić, 2016_[67]; Kassotakis and Verdis, 2013_[51]).

Review the role of general frontistiria and private tutoring to ensure quality

Governments have typically responded to private tutoring in one of four ways: by ignoring the problem entirely; by attempting to ban it; by regulating it; or, by actively encouraging it (Bray, 2009^[54]). To date Greece has tended towards regulating the sector but there are no controls on what is taught, the recruitment of teachers, or the fees charged in *frontistiria* and private tuition which mostly takes place entirely in the shadow economy. Greece may therefore wish to consider instituting regular monitoring of the quality of general *frontistiria* through more regular inspections, rigorously enforcing, with the assistance of teacher unions, the ban on public school teachers offering after-school tuition. Like any business, *frontistiria* are also subject to the same laws on misleading advertising. These need to be rigorously enforced, as the general public may face difficulties in fully understanding or verifying claims in their advertisements. For example, many *frontistiria* claim responsibility for their students' results in the Panhellenic examinations, and publish unverified lists of successful candidates on their websites.

While confidence in the school is being rebuilt, Greece could improve quality in the *idietera* sector by introducing a voluntary licensing scheme for private tutors and encouraging them to adopt a code of conduct. If kept voluntary, the transaction costs for tutors would be minimised and parents would, for the first time, have a quality indicator for the services that so many make major sacrifices to purchase.

3.3.3. Support equity across the system

In Greece there are a range of general policies to support equity across the system. It is important to consider the effectiveness of these approaches as a whole, and define where it is best to invest resources among Education Priority Zones (ZEP), all-day schools, and strategies to reduce selected early school leaving.

Ensure that the augmented schooling and additional resources of all-day schools are targeted at the most disadvantaged, or available to all

Teachers, students and parents have reported that the enriched curriculum, with new subjects, provided by the “new” all-day schools, has been very helpful, especially for students from low-income families (INE-GSEE, 2003^[74]; Kontorli, 2010^[75]). This was less the case for more affluent families as they would typically have access to these additional subjects (ICT and foreign language learning) through *frontistiria* and private tutors.

Certain gaps between policy and practice in the operation of the all-day school have been identified: while the all-day school aimed to achieve certain pedagogical and social aims, in practice, only a few of these aims (mainly related to the social dimensions) could be said to have been achieved so far. The all-day school has yet to achieve pedagogical aims such as homework completion at school (Gkoratsa, 2013^[76]). Extended instruction time in itself is likely to have a limited impact on overall student achievement unless it is well resourced, and the time is well planned for students. If resources are available, all-day schools should be made available to all; if not, they should be targeted at the most disadvantaged.

Evaluate the effectiveness of Education Priority Zones (ZEP)

While it is hard to determine the effectiveness of the ZEP overall, a systematic review needs to be made before taking any decision on their future. Where ZEP schools have succeeded in raising the achievement potential of their students there has been discernible mutual co-operation between staff, coherence in their teaching of a relatively constant

group of students to enhance pedagogic continuity, and a strong and dynamic school management that emphasises school performance.

Continue to combat early school leaving where it is particularly prevalent: Isolated schools, students repeating a grade, and those in vocational programmes

While the national early school leaving rate is lower than the European average, this conceals several areas of concern (Institute of Educational Policy, 2017_[88]). Urban areas have a lower rate of early school leaving compared with semi-urban and rural regions; vocational education and training programmes, and students repeating a grade far outstrip other programmes for rates of early school leaving. Successful strategies to combat school dropout usually combine measures to improve academic performance as well as to address out-of-school problems that may be hindering participation at school. Greece could therefore consider the following policy options:

- Make school more interesting and relevant to young people by introducing more subject choice and, in particular, placing a greater emphasis on vocational education. The option of vocational education could be introduced at an earlier stage in order to maintain interest for the less academically minded, and making transitions between academic and vocational programmes, as set out in the current three-year plan for education, will help avoid tracking young people too early and closing doors to future opportunities. Introducing more flexibility in how qualifications are acquired (for instance by introducing a modular system by which qualifications are acquired via a process of credit accumulation) might make education more attractive to young people, reduce the chances of permanently dropping out, and help achieve the Ministry's target of achieving the Ministry's target of 20% enrolment in VET programmes by 2017-18 and 33% in 2019-20 (Ministry of Education Research and Religious Affairs, 2017_[12]).
- Ensure early detection of individuals at risk of dropping out and provide individual, tailored support. Timeliness matters not only because later interventions are less cost-effective but also because dropout rates are so high in the first year of the upper secondary school and vocational upper secondary school. Tutoring in particular has been shown to be an effective policy to improve student performance.

3.3.4. Target interventions to student groups that need it most

Some communities and students may require targeted support to succeed. In Greece, isolated schools in remote islands or mountainous regions, and refugee students require careful review and attention to ensure that they have high quality educational opportunities.

Isolated communities may suffer from frequent teacher turnover, or from an imbalance of new versus more experienced teachers. In turn, teachers working in isolated schools are not be able to benefit from collaborative work with peers. School networks and clusters can leverage the capacity of many smaller schools as well as the broader community.

Targeted support for second-language learning and intercultural education will also be important to meet the needs of refugee students. This may include ongoing language support for learners, as well as teaching guidelines and materials on how to integrate content and language learning.

Support isolated schools by establishing networks to support resource sharing and to support teacher collaboration in these schools

Greece may wish to consider support for broader networking and development of partnerships between and among isolated schools (including through online networks) to support teaching and learning. Broader networks may be particularly important for schools in remote areas (islands and mountains), where schools have few staff and opportunities for collective work. School-school partnerships and clusters may be effective for schools in closer geographic proximity. Indeed, the idea of the school as a learning organisation (Kools and Stoll, 2016_[115]) views individual schools as part of a larger network with the community at large. Other network members may include higher education institutions, parents, and community members.

The experience of Portugal may also be instructive: the 2005/06 school network and rationalisation reform in Portugal was guided by a clear vision and criteria that specified which schools should close and what would replace them; it was recognised that parents needed to be convinced that the reform would have positive outcomes for them and their children and incentives were provided; municipalities supported the creation of the new structures and assumed leadership of the new system.

Greece may also wish to consider expanding the use of information and communication technologies (ICT) and other forms of ICT-supported learning, beyond their use in alleviating the difficulties faced by remote rural schools (see Box 3.2 for a discussion of the Korean online platform initiative) to help disadvantaged students as well. This could reach students without access to supplementary tutoring for whatever reason, as has been done in other countries. However, it would be important to build capacity among teachers and students alike to develop appropriate methods for ICT-based instruction and to apply these techniques effectively to support learning (Avvisati et al., 2013_[90]; OECD, 2015_[91]).

Support the integration of refugees into education

The approach of the MofERRA to the issue of refugee education has been to ensure that refugee children can return to normality and join the formal education system as soon as possible. A major issue in this respect is language: refugee students typically do not speak Greek upon arrival and require some time to reach a level where they are able to learn other subjects in the language.

Greece could further develop the school system to fully integrate immigrant and refugee children, and to facilitate their transition into mainstream classrooms. Ideally, refugee students would take intensive Greek classes *outside* the regular school year, before being integrated into regular, age-appropriate classrooms where they could both learn other subjects while developing their Greek language skills. It is important that continuous language support in regular classroom lessons be given in addition to the subject's content, but not as a replacement for the subject lesson (OECD, 2010_[110]).

A pressing question is that of resources, since most of the initiatives in the camps are funded sporadically – usually by European Commission grants (European Commission, 2016_[108]). The current plan to integrate refugee students requires finding reliable resources to sustain it and this should be an immediate priority. There is no clear assessment of the costs of the current initiatives to integrate refugee students into the formal school sector. More students involve extra costs to local schools, especially given that refugee students will require extra classes in Greek as a second language.

Some countries have been successful at making it easier for immigrant students to perform well in both language and mainstream classes. The Ministry's three-year plan for education includes a reform of pre-school curriculum. The aim is to develop diversified pedagogy from early on: preparing teachers to take account of the specific needs of refugee, immigrant and vulnerable students while also getting children used to intercultural schooling (Ministry of Education Research and Religious Affairs, 2017_[2]). This is an encouraging first step which could be rolled out in the primary and secondary curricula and support provided to teachers to implement the new curricula effectively.

The OECD review team heard that at present there is no mechanism in the Ministry's allocation of teachers to school units to assign teachers who have worked with refugee children, or to acknowledge this experience in their career development. Recognising teacher experiences in working with refugee children when allocating or recruiting new teachers could benefit both the children and their teachers.

3.3.5. Sequencing of the policy options to promote student learning for all

The policy options presented above are wide ranging and also related to governance and school improvement. They need to be underpinned by a shared and coherent vision that has widespread consensus and ownership, which will necessarily take time. Indeed, education reform needs a consensus between those involved including policy makers, educational staff, employers, students, and their families. Figure 3.4 sets out a possible phasing of the policy options to support student learning for all, taking into consideration the current context, needs, possibilities and resources in Greece.

In a *first phase*, it will be important to prioritise centring the discussion on student learning and equity. This can involve:

- Reviewing current plans to review the curriculum and the reform of upper secondary schools to an overall vision for education, focused on developing 21st century knowledge and skills. These two aspects are key to secure support and a positive view of the future and will require important consultation processes.
- Continuing to make targeted interventions to support especially refugees, and building on already existing actions which have been evaluated to stabilise and clarify the situation across the system.

At the same time, it is critical to begin work on the urgent task of improving education data, as a means of understanding student progress and allowing stakeholders to define progress against established goals. A specific need is to accurately measure participation in shadow education in all its forms, including examination of the curriculum, financing, management, and sociological aspects of the sector. Findings of this research would need to be disseminated widely.

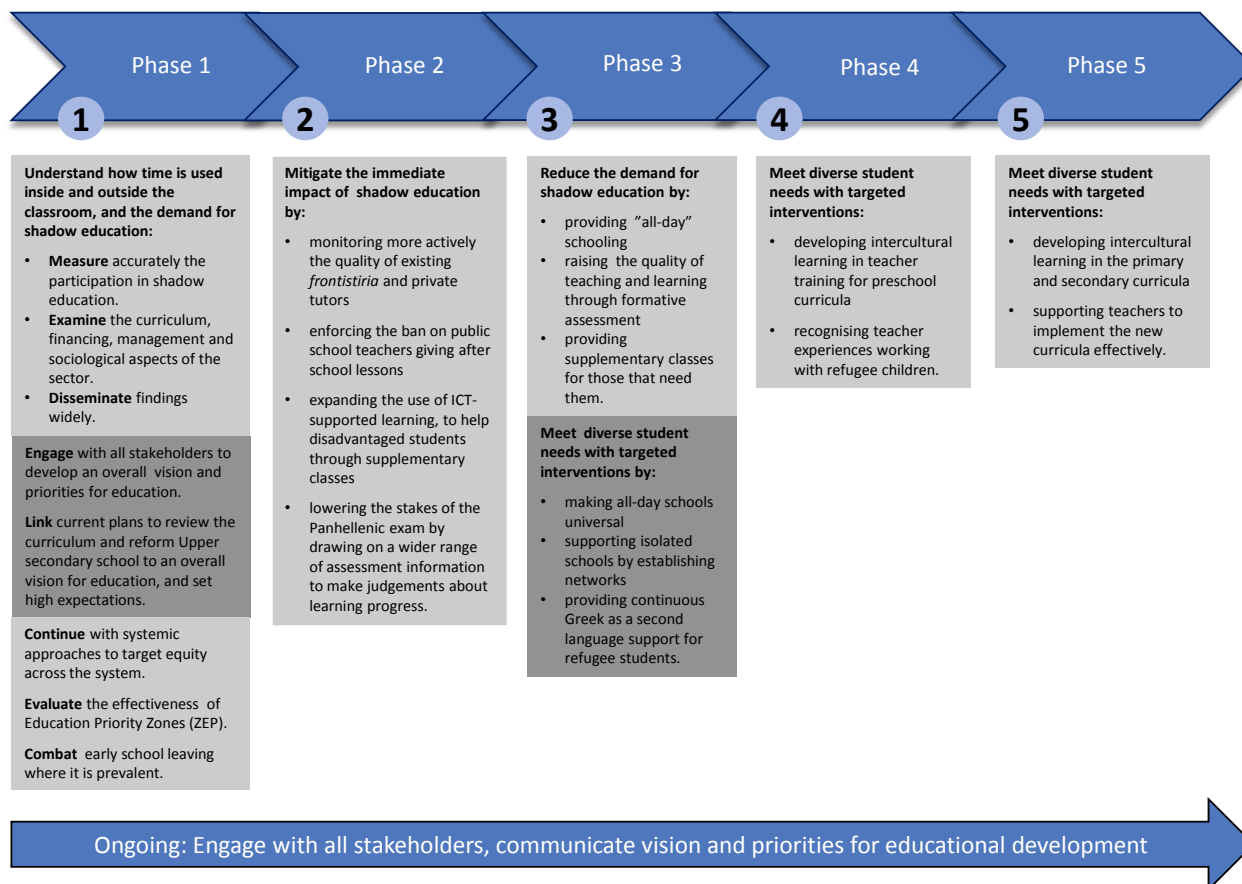
The *second phase* reforms can only be undertaken once those in the first phase, especially improved data on the system and its outcomes, have been established. These include mitigating the immediate impact of shadow education. There are two parts to this phase: monitoring more actively the quality of existing *frontistiria* and private tutors, while reducing demand through lowering the stakes of the Panhellenic examinations.

The *third phase* reforms are more medium-term and focus on raising equity across the system by continuing the focus on meeting diverse student needs. The first can be achieved through the provision of all-day schooling, providing supplementary classes (delivered digitally where necessary) once there is clarity on the curriculum that schools will be

following. At the same time, targeted interventions to meet diverse student needs can include the development of school networks to support isolated schools.

The *fourth and fifth phases* are longer-term and will require the development of actions for refugees that include the development of intercultural curricula at all levels of schooling and effective support for teachers delivering these curricula.

Figure 3.4. Suggested steps to enhance student learning for all: A sequential approach



Notes

¹ For a summary description of the seven levels of proficiency in science in PISA 2015, see OECD (2016_[3]).

² The socio-economic composition of a school is measured by the mean PISA index of economic, social and cultural status of the students who attend the school.

³ Beyond the constitutional right to education, Presidential Decree PD 220/2007, Article 9(1) also specifically guaranteed the children of applicants and children seeking international protection in Greece access to the education system under similar conditions to Greek nationals, as long as there are no pending enforceable removal measures against them or their parents, as has been done in many other European countries (Eurocities, 2016_[116]).

⁴ Intercultural schools implement the same curricula as regular public schools but make adaptations for the special educational, social, cultural or educational needs of their pupils. The ratio of pupils per class is minimised and special courses on the language and culture of the students' country of origin of (up to four hours per week) are offered. Schools are designated as intercultural schools where more than 40% of the student population is of foreign origin, and the local educational authority has accepted the application for the school to be designated as such (Tsalikis, 2016_[117]). Since 1996, a total of 26 intercultural schools have been established across the country: 13 primary schools, 9 lower secondary schools, and 4 upper secondary schools – 0.2% of all schools (Tsalikis, 2016_[117]).

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