

Improving Efficiency in Primary and Secondary Education

Rather than addressing the full range of reforms, this chapter focuses specifically on four major areas where urgent and fundamental change must be made to improve the efficiency of the Greek primary and secondary education system:

- development and use of human resources;
- rationalisation of the school network;
- evaluation and assessment; and
- governance and management of the education system.

For each of these issues, a brief analysis, an outline of major reforms, and the OECD's observations and recommendations for further action are provided.

DEVELOPMENT AND USE OF HUMAN RESOURCES

The efficiency of education depends on a number of interrelated factors, including the number of teachers and their duties (statutory instructional time and other responsibilities), the level of teacher compensation, teacher working hours, student instruction time, student-teacher ratios, and class size.

The OECD considers the inefficient use of human resources, especially teachers, as a core factor contributing to the low efficiency of the Greek education system.

Teachers

Number of teachers

The conditions affecting the supply and demand for teachers in Greece are changing rapidly, in ways that should help improve educational efficiency. The economic crisis, and actions taken by the Ministry of Education, are leading to a significant reduction in the numbers of teachers in primary and secondary education. Approximately 180 000 teachers were employed in permanent positions in 2010-11. The mergers and closures of schools, described in the following section, resulted in a loss of 2 000 permanent teachers' positions, approximately 80% of these in kindergarten and primary schools and 20% in secondary schools. The reduced number of positions in some regions is resulting in an increased number of redundant teachers with no positions available except outside their current region. In some cases, redundant teachers are being reassigned to other schools (e.g. secondary schools teachers of English, ICT, music and arts) or they are being reassigned to newly consolidated, all-day primary schools. Furthermore, government restrictions require that only one person should be replaced for every five who retire (5 to 1 rule), which will also lead to a significant reduction in the numbers of teachers. In 2010, about 11 500 primary and secondary teachers retired. During the period 2011-13, the Ministry estimates that retirements will continue at the current rate, with the result that in the four years between 2010 and 2013, 45 000 teachers will leave the system. Because of the 5 to 1 rule, the news media report that recruitment of regular teachers is unlikely to exceed 9 000 during the same period, resulting in an overall loss of 35 000 teachers – or 20% of all permanent teachers.

The challenge will be to ensure that the reductions are not mainly driven by administrative considerations, but that they lead to a more optimal allocation of human resources to students. Measures are also needed to address the consequences of worsening employment prospects for teachers currently without permanent positions or recent university graduates hoping to be teachers. Until recently, new graduates were employed in primary schools within a few months after receiving their degrees. While more than 2 000 qualified graduates are entering the labour market every year, the recruitment of new primary teachers is likely to be no more than 900 per year. The consequence is a growing number of teachers awaiting appointment (4 500 are already on the "list"), the majority of whom are working on contract on an hourly basis. Recent actions to freeze all public employment could further reduce the number of appointments to permanent teacher positions to replace those who retiring.

Teachers' salaries and salary cost

Teachers' salaries, which usually form the largest part of education budgets, are comparatively low in Greece. They are lower at all points of comparison (starting; after 15 years; and at the top of scale) than the OECD average (Figure 1.1). Equally problematic is the absence of situation and performance-related elements in the salary scale, which increases the difficulties in steering improvements in the match between demand and supply.

Despite low salaries, the salary cost per student (in USD) is higher in Greece than in most other OECD countries (Table 1.1), which underlines the urgency of addressing teacher-allocation issues. The effects of instruction time for pupils, teaching time for teachers, but above all, estimated class size, which is well below the OECD average, all contribute to that high salary cost per student.

Legal provisions governing teachers' hours

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Working hours for teachers and head teachers are specified by law. Every primary and secondary teacher is obliged to stay in school, in addition to the teaching hours, for not more than six hours a day for a maximum of 30 hours a week. This is the case for teachers with administrative duties (e.g. Heads and Deputy Heads, heads of sectors, etc.) and for other teachers only if they have been requested to do so by a member of the administrative staff and if they have been given concrete tasks to do (according to Article 9 par. 3 of N. 2517/1997, and Article 13 par. 8 and Article 14 par. 20 of N. 1566/1985).

As shown in Table 1.2, statutory teaching hours per week for primary school teachers decrease as the size of the school increases. Teachers with more years of service in larger schools teach fewer hours as their length of service increases. In other words, the less experienced teachers assume more of the teaching load. Thus, the value of more experienced teachers is lost.

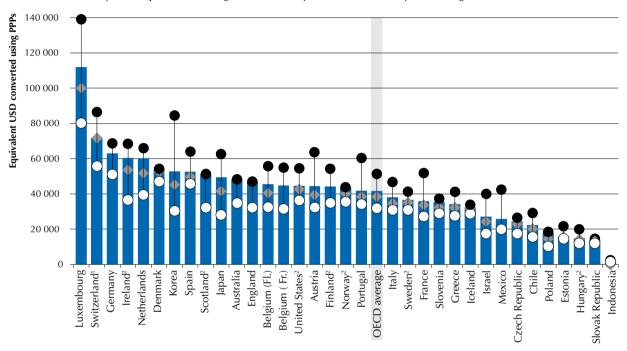


Figure 1.1 Teachers' salaries: An international comparison (2009)

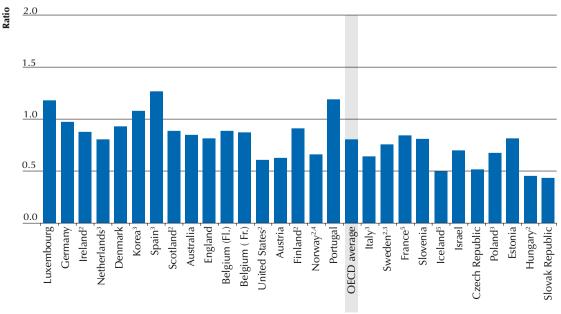
Salary after 15 years of experience/minimum training Salary after 10 years of experience/minimum training Salary at the top of scale/minimum training

○ Starting salary/minimum training

Annual statutory teachers' salaries in public institutions in lower secondary education, in equivalent USD converted using PPPs, and the ratio of salary after 15 years of experience to earnings for full-time full-year workers with tertiary education aged 25 to 64



Ratio of salary after 15 years of experience/minimum training to earnings for full-time full-year workers with tertiary education aged 25 to 64 (2009 or latest available year)



1. Salaries after 11 years of experience.

Actual salaries.

Year of reference 2008

4. Year of reference 2006 5. Year of reference 2007

Countries are ranked in descending order of teachers' salaries in lower secondary education after 15 years of experience and minimum training. Source: OECD (2010), www.oecd.org/edu/eag2010.



Contribution of school factors to salary cost per student in relation to the OECD average Table 1.1 (in equivalent USD, converted using PPPs for GDP, 2009)

			Contribution of t	he underlying factors t	o the difference from t	he OECD average
	Salary cost per student	Difference from the OECD average of	Contribution of the underlying factors to the difference from the OECD average of	Effect (in USD) of instruction time (for students) below/above the OECD average of	Effect (in USD) of teaching time (for teachers) below/above the OECD average of	Effect (in USD) of estimated class size below/above the OECD average of
-	OECD average	USD 2 309	USD 36 228	797 hours	782 hours	16 students per class
	(1)	(2)=(3)+(4)+(5)+(6)	(3)	(4)	(5)	(6)
Australia	2 917	608	629	485	-290	-218
Austria	2 940	631	120	-213	7	718
Belgium (Fl.)	3 256	948	348	145	-99	554
Belgium (Fr.)	3 125	816	229	416	206	-35
Canada	m	m	m	m	m	m
Chile	538	-1 771	-1 257	443	-130	-827
Czech Republic	1 198	-1 111	-873	-414	-144	320
Denmark	4 182	1 873	494	-413	596	1 196
Estonia	773	-1 536	-1 484	-441	339	50
Finland	2 655	346	134	-679	360	531
France	1 603	-706	-246	294	-329	-424
Germany	3 017	708	1 076	-618	-79	329
Greece	3 170	862	-348	-281	757	733
Hungary	1 420	-889	-1 694	-516	497	823
Iceland	2 730	421	-738	-262	390	1 030
Ireland	3 041	732	1 075	373	-428	-288
Israel	1 217	-1 092	-1 034	400	62	-519
Italy	2 984	675	-370	572	163	309
Japan	2 587	278	727	-291	242	-401
Korea	2 262	-47	956	-616	-169	-218
Luxembourg	5 595	3 286	2 297	562	213	214
Mexico	681	-1 628	-851	5	-33	-750
Netherlands	2 911	602	619	432	-458	10
New Zealand	2 245	-64	134	487	-531	-154
Norway	3 424	1 115	63	-569	154	1 467
Poland	1 342	-967	-1 832	-980	866	978
Portugal	3 135	826	-56	298	-246	831
Slovak Republic	m	m	m	m	m	m
Slovenia	2 033	-276	-266	-546	297	239
Spain	3 263	954	462	124	-331	700
Sweden	m	m	m	m	m	m
Switzerland	3 657	1 348	1 312	-338	-372	746
Turkey	820	-1 489	-876	126	317	-1 056
United Kingdom	2 209	-100	477	260	-205	-632
United States	3 090	781	540	563	-935	613

How to read this table: At USD 3 170, the salary cost per student in Greece exceeds the OECD average by USD 862. Below-average salaries and below-average instruction time reduce the difference from the OECD average by USD 348 and USD 281, respectively, whereas below-average teaching time and below-average class size increase the difference from the average by USD 757 and USD 733, respectively. The sum of these effects results in a positive difference from the OECD average of USD 862. Source: OECD (2010), (www.oecd.org/edu/eag2010). Data for Canada and Sweden were not available.

Table 1.2	Required	toaching	hours in	nrimary	education	(2010)
lable 1.2	nequireu	teatining	nours in	primary	education	2010)

			Primary E	ducation		
	Teachers in 4-post+ schools	Teachers in 1-post, 2-post and 3-post schools	Head teachers in 4-post and 5-post schools	Head teachers in 6-post to 9-post schools	Head teachers in 10-post to 11-post schools	Head teachers in 12-post+ schools
Years in service	Teaching hours	Teaching hours	Teaching hours	Teaching hours	Teaching hours	Teaching hours
0-10	24	25	20	12	10	8
11-15	23	25	20	12	10	8
16-20	22	25	20	12	10	8
20+	21	25	20	12	10	8

Source: Article 9 par.3 of Law 2517/1997 (Government Gazette n.160, issue A', 11/08/1997).

Primary school leaders with a university-level education are required to teach fewer hours as their time of service, and experience, increase (Table 1.3). Again, the better-prepared and more experienced teachers (at least in terms of subject-matter) are required to teach less than the less-prepared and less-experienced teachers (according to Article 9 of N. 2517/1997).



Table 1.3 Required teaching hours for teachers with university-level degree, primary education (2010)

University education	0-10 years	10-15 years	15-20 years	more than 20 years
University education	24	23	22	21

Source: Article 9 par.3 of Law 2517/1997 (Government Gazette n.160, issue A', 11/08/1997)

The teaching hours of head teachers in lower and upper secondary education decrease as the size of the school increases (Table 1.4). Their teaching obligations decrease as their length of service increases only after 20 years of service.

Table 1.4 Required teaching hours, secondary education (2010)

		Lower and upper	secondary education		
	Teachers with university degrees	Head teachers in schools of 3-5 classes	Head teachers in schools of 6-9 classes	Head teachers in schools of 10-12 classes	Head teachers in schools of 12+ classes
Years in service	Teaching hours	Teaching hours	Teaching hours	Teaching hours	Teaching hours
0-6	21	8	7	5	3
7-12	19	8	7	5	3
13-20	18	8	7	5	3
20+	16	6	5	3	1

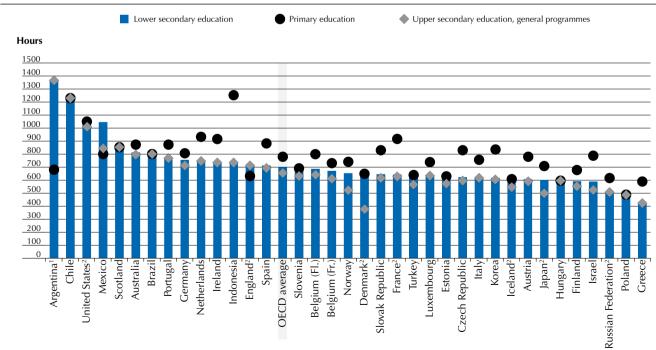
Source: Article 14 par.13 of Law 1566/1985 (Government Gazette n.167, issue A', 30/09/1985).

Teachers' workload

Teachers' yearly workloads are considerably lighter than those in most OECD countries, especially at the lower and upper secondary levels (Figure 1.2). Between 1996 and 2009, net contact time in hours per year decreased more sharply in Greece at all levels than any OECD country and significantly more than in the EU and in OECD countries on average.

Figure 1.2

International comparison of number of teaching hours per year, by level of education (2009)



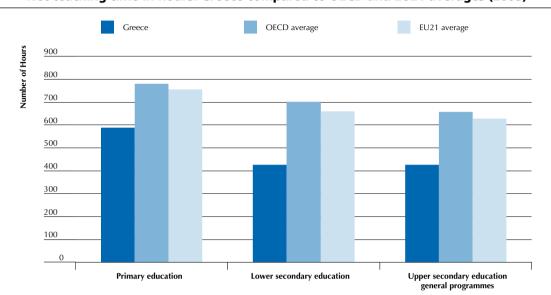
Net statutory contact time in hours per year in public institutions

1. Year of reference 2008.

2. Actual teaching hours. Countries are ranked in descending order of the number of teaching hours per year in lower secondary education. Source: OECD (2010c), Table D4.1. (www.oecd.org/edu/eag2010).

Net contact time in hours per year in public institutions

The school year in Greece is shorter than in many other EU and OECD countries, partly because high temperatures make extending the school year impractical. It is therefore necessary to adjust international comparisons to get an accurate picture of the workload. As shown in Figure 1.3, even with these adjustments, there remains a striking contrast between net teaching time in Greece and in OECD and EU countries.





Note: Number of days of instruction in Greece are adjusted to account for a shorter school year required by weather conditions. Source: OFCD.

Average class size

Maximum class size is defined by law to be 25 students per class in primary schools and 30 students per class in secondary schools. In practice, as shown below, many schools in Greece have significantly fewer students per class than the legal maximum after rationalisation and consolidation.

The number of students per class is lower than in almost all OECD and partner countries (Figure 1.4); and that number decreased from 2000 to 2009.

Student-teacher ratios

Greece has one of the lowest ratios of students to teachers among OECD and EU countries (Table 1.5 and Figure 1.5). An analysis of student-teacher ratios in relationship to school size confirms the pattern of the data reported to the OECD.

10010-115	- Student teacher ratios by leve	i, dicece compared to beeb a	na 20 15 averages (2007)
	Greece	OECD Average	EU-19 Average
Primary Education	10.1	16.0	14.4
Lower Secondary Education	7.7	13.2	11.5
Upper Secondary Education	7.3	12.5	11.4

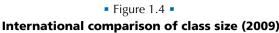
Note: 2007 was the last year that Greece reported these data to OECD. Source: OECD (2009b), www.oecd.org/edu/eag2009.

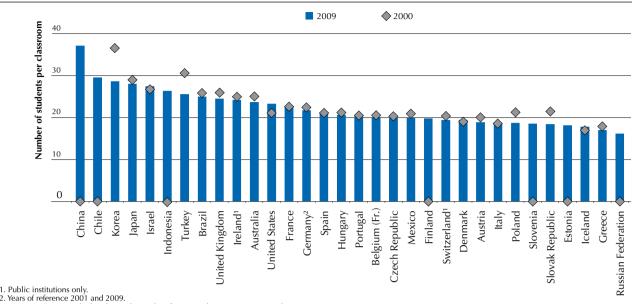
School leadership

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Greece has one of the most centrally governed and managed education systems in Europe (Figures 1.6, 1.7 and 1.8), as discussed later in greater detail. One of the areas in which school directors have the least authority compared to other countries is in managing human resources. Strengthening school leadership is one of the most crucial challenges for education reform.







Note: Countries are ranked in descending order of average class size in primary education in 2009 Source: OFCD, 2010c

Current reforms

Under current reforms, conditions surrounding the employment of teachers, school directors, school advisors and others are changing and new laws are being implemented. Among the changes are those enacted in May 2010 which, among other points:

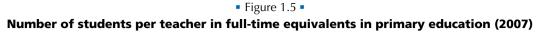
- introduced a certificate of pedagogic competence as a teaching qualification for secondary teachers;
- clarified the criteria for transfers and secondments and made it compulsory that teachers remain in their first position for three years, a provision to address the problem of teachers transferring from isolated and other less desirable locations after only a year. However, the third year counts as two in term of points gathered as an incentive, which also means that at the end of the third year, teachers in undesirable/remote schools are more likely to leave and be transferred to big urban centres, since they will have accumulated more points than other teachers in more desirable schools. Each school is attributed a different number of points depending on its desirability. Each year in service in a school counts for the corresponding number of points, should a teacher want to transfer;
- established the role of mentor for newly-appointed teachers on probation;
- provided for a second specialisation for teachers with a second degree (when appropriate) when approved by the Regional Education Council;
- established new "objective criteria" for selection of school directors, school advisors, and other management positions; and
- in keeping with the newly established selection criteria, ensured that all school directors, school advisors and other positions (approximately 10 000) are subject to reappointment, effective 20 June 2011.

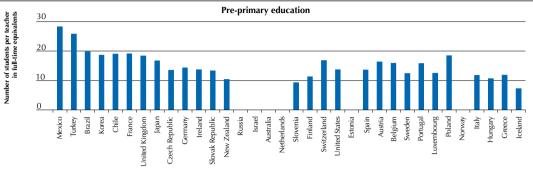
An ambitious in-service-training programme involving 8 000 primary school, foreign language and science teachers starting in June 2011 may contribute to greater quality in the system. To implement the programme, the Pedagogic Institute has launched a vast operation including a more professional approach to selecting trainers (experience in distance and adult learning, articles published, participation in innovative educational activities, etc.). Those high-calibre trainers, mostly university professors, are developing formats for lesson plans. The pilot phase of the programme, involving 600 teachers started in April 2011. The in-service training will link theory and practice using methods of adult education, such as active learning. The training, consisting of both contact hours and 150 hours of distance learning, is based on the new curriculum: managing the new curriculum, integrating new technologies, etc. Implementing the ideas of the "New School", creating digital classes, focusing on authentic learning, creating a digital platform for teachers to co-operate are all at the heart of the programme.

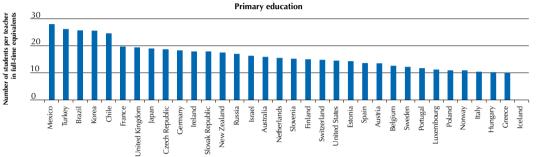
Recently announced changes in the administration of the education system will significantly change the roles of school directors, school advisors, and administrative personnel at the directorate and regional levels.

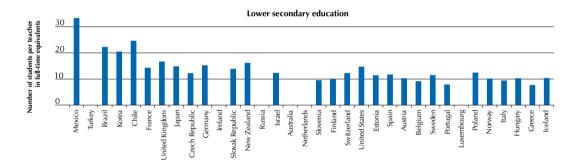
The rationalisation of the school network (described in the following section), and two pilot initiatives (Experimental and Model Schools, and All-day Primary Schools) also have potential implications for the roles of school directors and teachers. Other changes related to the role of teachers and school directors are also being addressed.

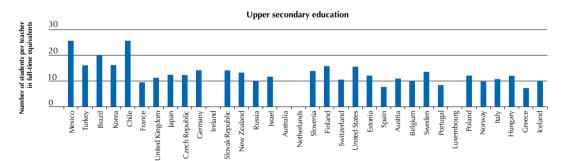


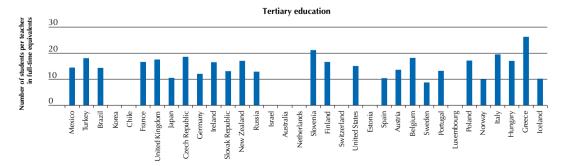












Note: Countries are ranked in descending order of ratio of students to teaching staff ratios in primary education. Source: OECD (www.oecd.org/edu/eag2009).

Range between top and bottom quarter

Figure 1.6

School principals' views of their involvement in school matters

Index of school principal's leadership based on school principals' reports

- I make sure that the professional development activities of teachers are in accordance with the teaching goals of the school. Α I ensure that teachers work according to the school's educational goals. В
- D
- E F G

С

м N

- I ensure that teachers work according to the school's educational goals. I observe instruction in classrooms. I use student performance results to develop the school's educational goals. I give teachers suggestions as to how they can improve their teaching. I monitor students' work. When a teacher has problems in his/her classroom, I take the initiative to discuss matters. I inform teachers about possibilities for updating their knowledge and skills. I check to see whether classroom activities are in keeping with our educational goals. I take exam results into account in decisions regarding curriculum development. I ensure that there is clarity concerning the responsibility for co-ordinating the curriculum. When a teacher brings up a classroom problem, we solve the problem together. I pay attention to disruptive behaviour in classrooms. I take over lessons from teachers who are unexpectedly absent.
- Н l J
- К L

Percentage of students in schools whose principals reported that the following activities and behaviours

			eported ed "quit													Range between top and bottom quarter	Variability in the index
		A	В	С	D	E	F	G	Н	1	J	К	L	М	N	Average index	(S.D.)
0	Australia	98	99	64	93	76	58	89	95	81	81	97	93	94	32		1.0
0	Austria	89	92	41	60	67	86	84	79	67	22	75	92	87	53		0.8
OECD	Belgium	95	97	43	42	68	33	89	90	82	46	74	98	96	4		0.8
	Canada	98	98	77	91	86	60	95	95	86	63	87	99	98	19		1.0
	Chile	97	98	55	93	95	73	90	96	82	84	94	97	97	62		1.1
	Czech Republic	95	98	57	81	79	93	86	98	83	59	93	96	75	23		0.8
	Denmark	86	89	25	44	53	39	94	91	76	25	76	99	95	29		0.6
	Estonia	92	94	59	84	58	75	72	93	57	62	87	83	79	24		0.9
	Finland	64	75	9	46	40	61	77	95	59	13	77	98	94	39		0.7
	France	w	w	w	w	w	w	w	w	w	w	w	w	w	w		w
	Germany	82	94	40	57	53	82	80	85	57	33	73	95	84	42		0.7
	Greece	40	78	12	61	53	46	97	96	67	34	69	98	96	63		1.0
	Hungary	93	99	54	84	62	84	89	91	65	73	86	94	91	41		0.8
	Iceland	88	89	39	78	77	69	87	96	54	58	87	100	75	26		0.7
	Ireland	88	88	14	64	41	50	88	92	62	78	88	97	97	39		0.9
	Israel	94	99	46	87	85	81	94	89	86	90	94	97	98	26		0.9
	Italy	97	99	39	86	75	87	96	98	88	77	92	98	98	18		0.9
	lapan	43	51	37	30	38	40	29	50	31	37	29	61	60	17		0.9
	Korea	80	85	42	64	68	56	75	69	60	46	63	79	68	7		1.2
	Luxembourg	87 95	98 97	32 68	65 94	52 89	64 90	96 95	67 91	74 92	32 62	47 90	98 97	98 96	23 43		1.0
	Mexico Netherlands	95	97	52	94 66	73	90 50	95 76	91 82	92 79	75	90 80	97 86	96 71	43		0.7
	Netherlands New Zealand	95	97	68	98	73		76	82	79	87	97	86	94	16		0.7
	Norway	81	98 88	24	98 70	49	42	90	91	48	47	97 81	98	94 95	28		0.6
	Poland	94	97	93	95	89	96	90	99	92	71	80	97	93	37		0.8
	Portugal	94	97	93	95	65	96 49	91	99 89	92 48	82	97	97	93	3/		0.8
	Slovak Republic	93	97	86	87	86	49 90	86	98	91	76	97	99	97	15		0.7
	Slovenia	99	100	77	78	85	90	90	95	85	65	90	91	91	23		0.7
	Spain	86	97	28	85	55	45	86	86	66	71	92	99	99	63		0.9
	Sweden	90	96	38	83	63	29	89	90	52	68	93	98	87	13		0.8
	Switzerland	72	82	64	34	60	61	85	80	59	17	54	92	83	31		0.8
	Turkev	85	95	70	93	85	90	75	90	87	78	93	97	99	36		0.9
	United Kingdom	100	100	93	100	92	88	90	96	95	97	99	96	97	29		0.9
	United States	98	98	95	96	94	72	95	97	94	88	90	97	96	16		1.1
	OECD average	88	93	50	75	69	66	86	89	72	61	82	94	90	29		0.9
		07	100	00	00	04	0.4		0.0	03	07	02	0.	0.0	47		
	Albania	97 95	100	98	99 90	94	94	90	88	93	87	93	96	96	47		0.8
Ę.	Argentina		98	63		96	84	94	91	86	66	87	98	96	43		0.9
ar	Azerbaijan Brazil	95 99	96 99	97 60	89 94	97 94	99 91	86 97	96 97	99 91	86 94	90 94	90 99	99 99	77		1.0
	Bulgaria	100	100	92	94	79	93	87	97	91	71	94	99	99	29		0.8
	Colombia	98	99	45	85	92	95 88	90	96	94 82	87	90	91	96	31		1.2
	Croatia	94	98	70	80	92	96	96	95	98	76	95	99	100	19		0.8
	Dubai (UAE)	100	100	95	97	98	93	98	99	98	90	93	98	97	39		1.2
	Hong Kong-China	99	99	99	97	100	93	96	98	95	92	97	96	96	45		0.9
	Indonesia	94	99	88	91	99	77	89	96	96	95	96	81	93	47		1.0
	lordan	99	100	100	99	100	98	99	99	99	81	81	100	99	90		1.1
	Kazakhstan	96	98	98	95	97	97	85	98	99	60	87	86	89	17		0.8
	Kyrgyzstan	90	92	98	90	94	98	89	96	95	82	87	86	81	29		0.9
	Latvia	96	97	80	97	83	86	85	94	85	75	83	76	85	30		0.8
	Liechtenstein	53	21	3	15	14	46	82	16	10	0	13	96	58	44		0.7
	Lithuania	97	98	47	92	75	60	74	89	55	65	89	95	83	7		0.8
	Macao-China	100	100	88	74	82	86	93	76	86	52	88	90	90	45	← _	0.9
	Montenegro	95	100	88	97	97	100	92	100	99	84	100	100	96	23		0.7
	Panama	91	95	86	88	95	84	90	92	95	85	88	97	94	43		1.1
	Peru	94	98	86	88	93	80	80	94	92	84	91	91	95	45		1.1
	Qatar	96	100	100	98	97	94	95	95	98	84	87	96	98	28	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	1.1
	Romania	98	100	87	98	90	90	96	98	99	91	99	100	99	40		0.8
	Russian Federation	99	99	92	89	87	95	80	99	97	55	97	96	86	31		0.9
	Serbia	97	100	67	90	91	82	97	99	87	93	91	97	97	44		0.8
	Shanghai-China	98	98	94	57	99	69	91	93	96	70	98	99	89	14		0.8
	Singapore	100	100	80	99	94	66	93	93	93	98	98	97	96	8		0.9
	Chinese Taipei	98	98	92	84	86	94	86	98	88	90	95	97	95	20		0.9
	Thailand	94	99	88	98	95	97	94	98	94	96	98	97	97	45		0.9
	Trinidad and Tobago	97	98	60	86	88	71	94	95	84	92	95	97	98	26		1.0
	Tunisia	84	97	92	92	97	60	97	82	84	40	59	99	99	45		1.1
	Uruguay	85	98	89	90	90	81	92	94	84	45	73	98	100	25		1.0

Note: Higher values on the index indicate greater involvement of school principals in school matters. Source: OECD, PISA 2009 Database, Table IV.4.8.

-3

0

-1 -2

1 2

3

I 4 Index points



How much autonomy individual schools have over resource allocation

Percentage of students in schools whose principals reported that only "principals and/or teachers", only "regional and/or national education authority" or both "principals and/or teachers" and "regional and/or national education authority" have considerable responsibility for the following tasks.

Α	Selecting teachers for hire
В	Dismissing teachers
С	Establishing teachers' starting salaries
D	Determining teachers' salaries increases
E	Formulating the school budget
	Desiding on hudget allocations within th

F Deciding on budget allocations within the school

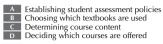
Only "principals and/or teachers"
 Both "principals and/or teachers" and "regional and/or national education authority"
 Only "regional and/or national education authority"

																			Range between top and bottom quarter	
																			♦ Average index	Variabili in the inc
	1	A 2	3	1	B 2	3	1	C 2	3	1	D 2	3	1	E 2	3	1	F 2	3	Index of school responsibility for resource allocation	(S.D.)
Australia	61	20	19	43	12	45	12	5	84	13	6	81	68	16	16	93	6	0		0.9
Austria	13	35	52	5	26	68	1	0	99	1	0	99	11	9	80	84	12	4	→_	0.3
Belgium	75	13	12	63	21	17	0	1	99	0	1	99	56	18	26	63	19	17	→→	0.3
Canada	54	39	7	17	35	48	3	5	92	4	6	91	25	30	45	76	19	5		0.5
Chile	69	8	23	59	3		37	1	62	37	1	62	55	9	36	71	9	20		1.2
Czech Republic	100	0	0	99	1		77	15	8	65	25	11	55	36	9	75	24	1		1.2
Denmark	97	2	0	69	15	16	20	10	70	16	14	70	80	13	8	98	2	0	•	0.9
Estonia	98	2	0	95	5	0	7	20	73	12	33	55	37	54	9	85	15	1		0.6
Finland	32 W	43 w	25 W	18 w	19 w	63 W	8 W	/ w	84 W	5 W	15 w	80 W	36 W	41 w	23 W	92 W	6 W	w		0.5 W
rance Germany	29	36	34	7	14	79	3	0	97	4	15	81	29	4	67	97	2	2		0.5
Greece	0	1	99	0	2	98	0	0	100	0	0	100	34	7	59	59	7	34		0.1
Hungary	99	1	0	97	2	1	49	7	44	56	7	37	73	15	12	92	5	2		1.2
celand	94	6	0	93	7	0	7	13	80	4	16	80	57	30	13	77	22	0		0.5
reland	61	25	14	36	14	50	0	2	98	1	0	99	60	13	27	89	5	6		0.2
srael	67	30	3	49	38	13	9	4	87	13	6	80	15	26	59	66	24	11		0.8
taly	9	10	82	9	6	84	3	0	97	3	0	96	7	7	86	69	11	21		0.5
apan	25	2	73	22	1	77	13	0	87	16	3	80	28	4	69	89	3	8		1.0
lorea	32	6	62	23	4	74	8	0	92	6	0	94	29	12	58	86	6	8		0.7
uxembourg	21	41	38	19	36	45	6	0	94	6	0	94	31	57	12	78	14	8		0.8
Aexico	34	5	61	22	4		8	0	92	6	0	94	46	6	48	71	7	22		0.8
letherlands	100	0	0	99	1		72	8	20	55	12	33	99	1	0	100	0	0	◆	1.0
New Zealand	100	0	0	89	7	4	9	3	88	15	21	64	95	4	1	99	1	0		0.7
Norway	72	21	6	44	22	34	8	4	88	6	13	81	55	28	17	88	12	1		0.6
Poland	87	12	1	90	10	0	9	20	71	4	20	77	7	42	51	26	43	31		0.4
Portugal	13	57	30	14	0	86	5	0	94	5	0	94	63	10	27	89	3	8		0.7
lovak Republic	98	2	0	98 88	2	0	39 7	27	34 82	32 13	33 31	35	45 26	40 49	15 26	70 78	27 21	3		0.6
lovenia	31	3	66	32	10	67	3	2	95	3	2	95	63	49	33	93	4	3		0.6
ipain iweden	96	4	00	63	17	20	57	16	27	69	22	9	64	20	16	93	5	2		1.1
witzerland	82	15	3	60	26	15	8	8	84	8	13	79	35	30	35	83	13	4		0.7
Turkey	1	1	99	2	20	96	1	0	99	1	0	99	34	19	47	56	16	28	• •	0.2
Jnited Kingdom	90	9	0	70	22	8	52	23	25	67	17	15	57	29	14	95	5	1	· · · · · · · · · · · · · · · · · · ·	1.1
United States	88	12	0	75	19	6	17	5	78	18	6	75	54	29	16	83	13	4		0.9
DECD average	61	14	25	51	13	37	17	7	77	17	10	73	46	22	32	81	12	8		0.7
Albania	8	14	78	7	14	79	3	0	97	3	1	96	33	12	55	61	8	31		0.5
Argentina	44	5	51	27	3	70	2	1	97	1	4	96	22	5	73	64	12	24		0.4
Azerbaijan	40	22	38	61	17	22	35	6	59	13	3	84	5	6	89	20	4	76	(0.3
Brazil	17	7	76	14	8	78	8	1	91	7	1	92	14	5	80	21	6	73		0.8
Sulgaria	93	5	2	97	2	1	66	20	14	84	12	4	73	22	5	92	7	1	• • • • • • • • • • • • • • • • • • •	1.1
Colombia	21	5	75	21	1		14	0	86	13	1	86	58	5	36	87	5	8	••••	1.0
Croatia	90	10	0	84	11	5	1	1	98	2	1	97	26	34	40	68	23	9		0.4
Oubai (UAE)	65	12	23	67	9	24	62	3	34	68	1	31	75	2	22	92	3	5	↓ • • • • • • • • • • • • • • • • • • •	1.2
long Kong-China	83	15	2	79	17	4	18	24	58	15	12	74	84	15	2	91	9	0		0.9
ndonesia	29	12	59	26	11	63	20	9	70	23	11	66	83	11	5	78	14	8		1.0
ordan (analylastan	6	1	93	4	1	95	1	1	98	2	0	98	83	1	17	70	2	28		0.4
azakhstan	88	10	2	95	4		17	10	73	8	10	82	8	13	79 91	17	19 7	64		0.7
yrgyzstan atvia	74 94	14	11 2	68 96	13	19 0	18 10	4	77 75	13 18	3 25	84 57	12 62	7 25	81 12	19 81	7	74		0.6
atvia iechtenstein	41	4	59	37	4		6	0	94	39	17	45	37	25	63	100	0	0		1.0
ithuania	96	4	0	99	1	0	11	7	94 81	- 59 6	8	86	25	27	48	42	29	28		0.5
Aacao-China	90	4	4	99	5	4	91	4	5	90	4	5	95	5	40	84	16	0		1.0
Intenegro	89	11	0	82	18	0	0	5	95	10	11	78	12	21	68	65	22	13		0.3
anama	22	3	76	20	8	72	14	5	81	14	8	79	70	15	15	43	10	47		0.9
eru	38	15	47	30	9	61	22	2	76	22	2	77	60	9	31	79	6	15		1.3
)atar	52	3	44	54	5		47	3	50	47	4	50	43	4	53	52	4	44		1.2
omania	1	9	91	4			0	2	97	1	4	95	7	25	68	40	13	47	←	0.1
ussian Federation	95	4	1	95	5		35	15	50	29	20	51	8		63	46	28	27		0.7
erbia	72	28	1		30	7	1	8	90	16	19	65	9	27	64	74	16	10	→	0.3
hanghai-China	98	2	0		1			5	59	43	6	51	91	2	6	98	1	1	▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲	1.1
ingapore	14	38	48	14			4	3	93	7	17	75	49	22	29	91	8	1		0.6
Chinese Taipei	73	13	14	74			18	7	75	23	7	70	50	13	37	78	8	14		1.0
hailand	30	20	50						56	72	24	5	70	20	10	90	7	2		1.1
rinidad and Tobago	17	14	69	6	4		2	1	96	6	5	89	46	28	26	75	12	12		0.6
Tunisia Jruguay	2	0	98	1	0		1	1	99	1	0	99	10	18	72	78	13	9		0.3
	17	5	78	13	1	86	3	1	96	2	1	96	13	12	75	49	16	35		0.6

Source: OECD, PISA 2009 Database, Table IV.3.5.

Figure 1.8 How much autonomy individual schools have over curriculum and assessment, **PISA participating countries (2009)**

Percentage of students in schools whose principals reported that only "principals and/or teachers", only "regional and/or national education authority" or both "principals and/or teachers" and "regional and/or national education authority" have a considerable responsibility for the following tasks.





Only "principals and/or teachers" Both "principals and/or teachers" and "regional and/or national education authority" Only "regional and/or national education authority"

			,	0				lon aut	,					Range between top and bottom quarter	
														♦ Average index	
		1	A 2	3	1	B 2	3	1	C 2	3	1	D 2	3	Index of school responsibility for curriculum and assessment	Variability in the index (S.D.)
0	Australia	65	33	2	92	8	0	46	40	14	75	24	1		0.9
OECD	Austria	57	27	15	94	5	1	37	40	23	32	40	29	••••	0.8
0	Belgium	78	19	4	94	4	1	32	42	26	40	46	13	+	0.8
	Canada	28	62	10	40	49	11	12	51	38	44	54	3		0.6
	Chile Czech Republic	72	21	6 0	73 89	20 11	7	43 83	22 16	35 1	64 88	20	16		1.0 0.8
	Denmark	61	28	11	100	0	0	56	32	12	47	39	14		0.9
	Estonia	63	33	3	66	32	2	66	30	4	79	20	2		0.9
	Finland	50	43	7	98	2	0	32	52	16	55	39	6		0.8
	France	w	w	w	w	w	w	w	w	w	w	w	w		w
	Germany	71	21	9	84	13	3	21	47	32	80	18	2		0.7
	Greece	20	12	68	7	8	85	1	3	96	6	5	88	•••	0.3
	Hungary Iceland	94	6	0	98 93	2	0	49 61	36 26	15 13	43 48	28 42	29 10		0.9
	Ireland	87	13	0	95	3	0	29	37	34	78	21	10		0.9
	Israel	80	20	0	53	43	4	52	44	5	44	50	6		1.0
	Italy	91	8	1	99	1	0	59	27	14	49	25	27		0.9
	Japan	98	2	0	89	8	3	93	6	1	94	5	2		0.7
	Korea	92	6	2	96	4	0	89	8	2	79	17	4		0.8
	Luxembourg	9	33	58	13	80	7	9	72	20	18	61	21		0.6
	Mexico	56 99	15	29	63	11	26	14	7	79	5	5	91		0.5
	Netherlands New Zealand	81	1	0	100 99	0	0	87 79	12 20	1	89 92	10 8	1		0.6
	Norway	38	36	27	99	2	1	30	40	30	23	33	44		0.8
	Poland	92	8	0	92	8	0	93	7	0	40	31	29		0.8
	Portugal	35	37	28	98	2	0	5	3	92	10	5	86		0.4
	Slovak Republic	76	21	3	56	39	5	48	47	5	52	48	1	• • • • • • • • • • • • • • • • • • •	1.0
	Slovenia	46	48	5	72	27	1	34	59	6	28	52	20	• • • • • • • • • • • • • • • • • • •	0.8
	Spain	44	34	23	95	5	0	32	31	37	30	31	39		0.8
	Sweden	66	30	3	99	1	0	66	26	8	53	25	22	-	1.0
	Switzerland	57 42	27	16 30	40	40 18	20 68	21	41 15	38 76	24 14	50 21	27		0.7
	Turkey United Kingdom	88	29 12	30	98	2	0	77	20	2	86	14	65 0		0.4
	United States	46	40	13	62	28	10	36	46	18	58	37	4		0.9
	OECD average	66	23	11	78	15	8	45	31	24	50	28	21		0.8
s	Albania	51	16	33	91	8	1	35	7	57	35	12	53	• • • • • • • • • • • • • • • • • • •	0.8
Partners	Argentina	74	20	6	81	16	3	28	43	29	8	30	61		0.6
ar	Azerbaijan	54	8	38	50	6	43	27	9	64	37	5	58		0.8
	Brazil	47	27	26	88	9	2	35	25	40	18	17	65		0.8
	Bulgaria Calambia	25 39	37	38 39	88 92	12	1	10 69	26 23	65 8	10 64	15 14	75 23		0.4
	Colombia Croatia	26	36	38	63	34	3	11	50	39	2	25	72		0.4
	Dubai (UAE)	77	10	13	55	17	27	62	13	26	59	16	25	• • • • • • • • • • • • • • • • • • •	1.1
	Hong Kong-China	93	7	0	93	7	0	81	17	2	87	13	0		0.8
	Indonesia	67	28	6	80	13	7	75	18	7	49	23	28	◆ · · · · · · · · · · · · · · · · · · ·	0.9
	Jordan	27	4	70	4	1	95	7	1	93	7	1	92	••••	0.5
	Kazakhstan	31	22	47	16	14	70	11	18	71	40	22	37		0.5
	Kyrgyzstan	65	8	26	68	8	23	59	10	31	44	7	49	•	1.0
	Latvia Liechtenstein	56 69	40 25	4	71 54	27 5	2 40	19 41	46	36 59	30 53	42	28 38		0.6
	Lithuania	75	20	5		11	40	50	35	15	75	20	5		0.9
	Macao-China	95	0	5	100	0	0	94	6	0	81	14	4		0.8
	Montenegro	40	32	28	5	30	65	5	34	61	20	36	44		0.6
	Panama	41	25	34	52	26	22	41	23	36	26	23	51	•	0.8
	Peru	75	15	10	52	12	37	53	23	24	45	18	37		1.0
	Qatar	45	18		37	16	47	31	9	60	35	17	48		0.9
	Romania	42	36	22	86	13	1	46	33	20	31	41	29		0.7
	Russian Federation Serbia	63 49	25 44	12 7	65 19	27 59	8 23	21	40 41	39 57	71 0	22	7 87		0.8
	Shanghai-China	86	44 9	5	49	17	34	45	22	33	52	28	20		1.0
	Singapore	57	41	2	72	24	3	43	38	18	66	31	4		0.9
	Chinese Taipei	74	17	8	92	8	0	81	16	3	68	25	7		0.9
	Thailand	79	18	2	89	10	1	89	11	0	91	8	1		0.8
	Trinidad and Tobago	50	45	5	29	62	10	21	40	39	34	51	15		0.7
	Tunisia	11	11	78	0	1	99	3	14	83	4	9		◆	0.1
	Uruguay	23	30	47	31	36	33	3	26	71	21	19	59		0.4

Source: OECD, PISA 2009 Database, Table IV.3.6.

-2.0 -1.5 -1.0 -0.5 0 0.5 1.0 1.5 2.0 2.5 Index points



Observations on current reforms

Optimisation of teacher workload and allocation

Among the steps to increase the efficiency of the education system, Greece should narrow the significant gap in workloads between their teachers and those in most other EU and OECD countries. Based on the analysis in Figure 1.3 comparing annual workloads in Greece with OECD and EU19 averages, Greece would need to increase weekly teaching obligations approximately by four to five hours per week to reach the OECD average. Tables 1.6 and 1.7 illustrate an alternative that would establish a target of reaching the OECD and EU averages. The changes would focus on increasing the workloads of the most experienced and best prepared teachers at the primary and secondary levels.

				Target for prin	nary education				
	Teac	chers in 4-post+ scho	pols	Teachers in 1-post, 2-post and 3-post schools	Head Teachers in 4-post and 5-post schools	Head Teachers in 6-post to 9-post schools	Head Teachers in 10-post to 11-post schools	Head Teachers in 12-post+ schools	
Years in service	Current teaching hours	New teaching hours	Increase	Teaching hours	Teaching hours	Teaching hours	Teaching hours	Teaching hours	
0-10	24	25	+1	25	20	12	10	8	
11-15	23	25	+2	25	20	12	10	8	
16-20	22	25	+3	25	20	12	10	8	
20+	21	25	+4	25	20	12	10	8	

Table 1.6 Proposed target for teaching hours per week in primary education

Source: OECD.

Table 1.7 Proposed target for teaching hours per week in lower and upper secondary education

	Target for lower and upper secondary education								
	Teachers with University degrees			Head Teachers in schools of 3-5 classes	Head Teachers in schools of 6-9 classes	Head Teachers in schools of 10-12 classes	Head Teachers in schools of 12+ classes		
Years in service	Current teaching hours	New teaching hours	Increase	Teaching hours	Teaching hours	Teaching hours	Teaching hours		
0-6	21	22	+1	8	7	5	3		
7-12	19	22	+3	8	7	5	3		
13-20	18	22	+4	8	7	5	3		
20+	16	22	+6	6	5	3	1		

Source: OECD.

30

Teacher selection and placement to schools

Successful enterprises often report that personnel selection is the most important set of decisions that they make. In Greece, the evidence suggests that all too often the teacher-selection process follows rules about qualifications and seniority that bear little relationship to the qualities needed to be an effective teacher. The sheer size of the school system means that the process of teacher selection is often highly impersonal, and it is hard for teachers to build a sense of commitment to the schools where they are appointed – or for the schools to build a sense of commitment to them. Broader selection processes, typically including interviews, preparation of lesson plans, and demonstration of teaching skills, would give greater weight to those characteristics that are more directly related to the quality of teaching and learning than the traditional emphases on qualifications and years of experience.

Moreover, the current processes for selection and placement of teachers in Greece are centrally controlled, and provide for only limited responsibility at other levels of the system. School directors identify vacant posts foreseen in the following year up to 31 August resulting from teachers' expected retirement or resignation from service (May 2010 Law). These requests can then be verified at the regional level and the regional directors make recommendations to the Ministry. The accuracy of these recommendations has recently been improved though a new electronic data system.

These vacancies are then published and prospective teachers are invited to submit their preferences. Their appointment is based on the rank applicants hold in the list derived from their grades in a competitive exam, plus other points they might get for a variety of reasons, and their preferences. Then they are sent to the corresponding prefecture directorates (the units between the school and the region in the new organisational structure described later in this report), and these directorates make the school placement.

The OECD report *Teachers Matter* (OECD, 2005) emphasises that for improving student learning, schools should be given a greater role in teacher selection. It also points out that such an approach works best where parallel steps are taken to ensure that efficiency and equity are not jeopardised. Such steps include: developing school directors' skills in personnel management; providing disadvantaged schools with greater resources with which to recruit effective teachers; and improving information flows and monitoring the teacher labour market. "Successful decentralisation of personnel management (and school decision-making more generally) requires that central and regional authorities play a strong role in ensuring an adequate and equitable distribution of teacher resources throughout the country" (OECD, 2005, p.163).



Given the large number of teachers and applicants involved in the Greek school system, it may be difficult and costly for schools to use extensive information when selecting candidates. It can be just as difficult for candidates for teaching positions to have precise information about the schools to which they apply, or even about broad trends in the labour market and the available vacancies. Such information gaps and limitations mean that many application and selection decisions are sub-optimal. The development of transparent and timely systems to close the information gaps between teachers and schools will be essential for an effectively functioning teacher labour market, especially where schools are more directly involved in teacher recruitment and selection. Some countries require all teaching vacancies to be posted, and create websites where the information is centralised or establish a network of agencies to co-ordinate and foster recruitment activities. Since imbalances in the teacher labour market can take a long time to be rectified, tools for monitoring and projecting teacher demand and supply under different scenarios can also help.

Professional development of teachers

The development of teachers beyond their initial education is an essential component of human resource development and can serve a range of purposes, including to:

- update individuals' knowledge of a subject in light of recent advances in the area;
- modernise individuals' skills and approaches in light of the development of new teaching techniques and objectives, new circumstances, and new educational research;
- enable individuals to apply changes made to curricula or other aspects of teaching practice;
- assist schools in developing and applying new strategies concerning the curriculum and other aspects of teaching practice;
- exchange information and expertise among teachers and others, e.g. academics and industrialists; and
- help weaker teachers become more effective.

While this large-scale professional development effort currently underway is impressive, several critical points could strengthen the professional development efforts (see Box 1.1).

Box 1.1 Lessons from Portugal

For more than twenty years, Portugal invested heavily in in-service teacher training, using substantial resources from the European Union structural funds for that purpose. However, the positive impact of such a huge investment on teaching quality and student achievement was hardly noticeable.

Statutory rules requested teachers to take part in at least 25 hours of accredited training per year, but the system gave them full autonomy to choose whatever they wanted to attend. Teacher training became a business for trainers and training institutions and an end in itself without any connection with schools' actual needs.

More recently, in the framework of the "full-time" program for primary schools, the Ministry of Education, with the support of some institutions providing initial teacher training, designed and implemented an in-service training programme for teachers in three main subjects: Mathematics, the Portuguese language and the experimental teaching of science. This programme represented, in both design and implementation, an absolute departure from the previous training model.

First it was based on common content and training objectives – targeting classroom competencies – especially designed by education colleges and university departments, which also provided the outside trainers and supervised the programme implementation on a regional basis. Second, it took the school and the classroom as its focus. Schools developed a small resident training structure with focal teachers, who were the first to be trained and became responsible for replicating and disseminating the training in the school. Still, education colleges and university departments kept a role in monitoring and supervising the way the programme was carried out.

This programme engaged a significant share of primary teachers and the first assessment of its impact seems very encouraging. Its focus on the school and classroom are most likely the key to its success.

Source: Mathews, P., et al., (2009), pp. 63-69.

Professional development needs to reflect changes in the role and functioning of schools – and changes in what is expected of teachers. Greek teachers are asked to teach in increasingly multicultural classrooms. Teachers must place greater emphasis on integrating students with special learning needs, both special difficulties and special talents, in their classes. They need to make more effective use of information and communication technologies for teaching. They are required to engage more in planning within evaluative and accountability frameworks. They are also asked to do more to involve parents in schools. No matter how



good the pre-service education for teachers is, it cannot be expected to prepare teachers for all the challenges they will face throughout their careers.

There are several aspects that will be central to successfully bridging the gap between the ideal learning environment and day-to-day practice:

- Well-structured and -resourced induction programmes can support new teachers in their transition to full teaching responsibilities before they obtain all the rights and responsibilities of full-time professional teachers. In some countries, once teachers have completed their pre-service education and begun their teaching, they begin one or two years of heavily supervised teaching. During this period, the beginning teacher typically receives a reduced workload, mentoring by master teachers, and continued formal instruction.
- Effective professional development needs to be ongoing, include training, practice and feedback, and provide adequate time and follow-up support. Successful programmes involve teachers in learning activities that are similar to those they will use with their students, and encourage the development of teachers' learning communities.
- Teacher development needs to be linked with wider goals of school and system development, and with appraisal and feedback
 practices and school evaluation.
- There is often a need to re-examine structures and practices that inhibit inter-disciplinary practice and to give more room for teachers to take time to learn deeply, and employ inquiry and group-based approaches, especially in the core areas of curriculum and assessment.

Greece needs to pay attention to the linkages between the approach to its professional development and its employment models. The model for teacher employment in Greece is "career-based" public service, in which entry is competitive, career development is extensively regulated and lifetime employment is largely guaranteed. In a situation where teachers are not commonly removed for unsatisfactory performance, the quality of teachers depends mainly on setting high standards for entering teacher-preparation programmes, on the quality of their initial preparation, and on the attention given to the quality of their preparation following their initial induction. Under such career-based systems, the risk is that the quality of the teaching force depends excessively on getting initial recruitment and teacher education right, and that any improvement over time will take many years to affect most serving teachers. Moreover, career advancement can become heavily dependent on adhering to organisational norms, which helps to ensure uniformity and predictability of service and a strong group ethos, but can make systems inflexible to change and ill-equipped to serve diverse needs in different settings.

While some may consider security of employment as an incentive to become a teacher, there may not be sufficient incentives or support systems for all teachers to continuously review their skills and improve their practice, especially where there are only limited mechanisms for teacher appraisal and accountability. Tenured employment can also make it difficult to adjust teacher numbers when enrolments decline or curricula change, and may mean that the burden of adjustment falls on those who lack tenure, commonly those near the beginning of their careers. Greece should consider requiring teachers to renew their teacher certificates after a period of time, and to demonstrate that they have participated in ongoing professional development and coursework to increase, deepen, and strengthen their knowledge. The basis for renewal can be as simple as an attestation that the teacher is continuing to meet standards of performance that are agreed throughout the teaching profession. Such systems must ensure an open, fair and transparent system of teacher appraisal, involving teaching peers, school leaders and external experts who are properly trained and resourced for these tasks – and who are themselves evaluated on a regular basis. Underpinning these models is the view that the interests of students will be better served where teachers achieve employment security by continuing to recognise and acknowledge quality teaching. Some countries have fair but speedy mechanisms to address ineffective teaching. Teachers in these countries have the opportunity and support to improve but, if they do not, they can be moved either into other roles or out of the school system (OECD, 2005).

Professional development should also be more systematically linked with the roll-out and implementation of major reforms (see Box I.2). The focus of the large-scale professional development project is on preparing teachers for the new curriculum in the context of the "New School" initiative. At present, the training is targeted primarily at individuals and fails to:

- provide training for teams from schools (e.g. several teachers, the school director, school advisors, etc.). The chances that
 teachers will be able to adapt knowledge and skills gained in the training are likely to increase if there is a support network when
 they return to their schools;
- Iink with and support other initiatives, such as the roll-out of full-day primary schools; and
- provide training and support for schools that have recently been merged or consolidated.

Greece should complement the centrally led approach to professional development with a more local, decentralised, approach, based on the articulation of school needs, preceded by the evaluation and examination, at school level, of those needs and of the



ways to meet them. There needs to be a more deliberate link with the results of the Self-Evaluation Pilot project (see the section on Assessment and Evaluation). Needs are contextual and schools and students are diverse. Diversity is probably the greatest challenge that Greek schools and teachers have to meet, and so training solutions must be set in the right framework to address this challenge. Therefore, in-service teacher training should be based on school training plans. The impact of in-service training may be greater when developed as much as possible within the framework in which teachers usually perform their jobs. As much as possible, trainers should be brought to the school and should interact with teachers through a resident training structure, to be established in each school, that will take up the day-to-day development and implementation of the training plan. School support networks, alluded to above, involving school advisors, training centres and university departments, could assist the schools in designing and implementing such plans.

Funding should be allocated to school units or school clusters to ensure that training is accessible to all teachers. Training priorities can be aligned with the Ministry of Education's priorities in terms of implementing elements of the "New School" initiative such as the extension of the Self-Evaluation Pilot to all schools and implementation of New School Administration reforms (see section on Governance and Management) that call for fundamentally different roles and responsibilities for school directors, deputy directors, and teachers' councils.

Greece should use the trainers (e.g. category "B" trainers in the large-scale professional development programme now being implemented) to build the capacity for ongoing professional development at the prefecture/department level and at the level of school clusters. It should also provide special training, retraining and upgrading programmes with a view to preparing teachers engaging in pedagogical management roles (middle school leadership) and enabling redundant teachers to gain new qualifications to teach in other types of schools or to take on high-demand subject areas.

Box 1.2 Teacher professional development in the Flemish community of Belgium

The Parliament lays down the core curriculum for pre-primary education, compulsory school education and initial teacher training. Final objectives for mainstream primary and secondary education (i.e. for general subjects) are minimum objectives which Parliament considers necessary and attainable for pupils. These objectives consist of knowledge, skills and attitudes. The final objectives are a minimum as policymakers want to leave enough space for creative input from school teams and groups of schools. Some groups of pupils need not attain the final objectives. For pupils in pre-primary, special education and pre-vocational secondary education developmental objectives have also been laid down by parliament. Teachers must develop these objectives with their pupils but they are not required to attain them. Cross-curricular objectives learning to learn, environmental awareness, citizenship, etc. have also been incorporated into the core curriculum.

Flemish parliament wants teachers who are qualified to teach the core curriculum. That is why it has laid down a professional profile for experienced teachers in pre-primary, primary and secondary education. Teachers should attain that profile after several years of practice and professional development. Obviously, teacher training graduates should not achieve that status. That is why basic competences have been drawn from the professional profile as the core curriculum for teacher training institutions, whether universities or university colleges.

The professional profile has been designed so as to match the demands and challenges of the core curriculum of preprimary and compulsory school education. Graduates from initial teacher training should have the skills, competences and attitudes to teach this curriculum. But only after a few years of practice and in-service-training will they have the skills, competences and attitudes of the professional profile. Ideally, the core curriculum of initial teacher training is perfectly aligned with the core curriculum of pre-primary and compulsory school education.

All teachers and school directors in pre-primary and compulsory school education have job descriptions: the *raîson d'être* of the job, result areas, skills, competences and attitudes. Developing a job description is a cooperative effort by teachers and school directors for the former and by school directors and the school boards for the latter. Teachers and school directors are evaluated every four years by somebody who is their superior, never by a peer. Teachers can be evaluated by the school director, a deputy school director or a workplace manager for VET teachers; school directors are evaluated by the school boards. The job descriptions are used as benchmarks to see whether teachers and school directors have achieved their objectives. The basic aim of these evaluations is to help teachers and school directors improve and do a better job by identifying strengths and weaknesses. Professional development activities will contribute to fill any gaps in their performances. Every evaluation is concluded by a narrative conclusion. Two successive evaluations or three negative evaluation during the career lead to dismissal.

Strengthening school leadership

The OECD report, *Improving School Leadership* (OECD, 2008a), underlines the critical role of school directors in schools that have the most positive impact on student learning. Key findings include:

- Policy makers and practitioners need to ensure that the roles and responsibilities associated with improved learning outcomes are at the core of school leadership practice. The study identifies four major domains of responsibility as key for school leadership to improve student outcomes:
 - supporting, evaluating and developing teacher quality: School leaders have to be able to adapt the teaching programme to local needs, promote teamwork among teachers and engage in teacher monitoring, evaluation and professional development.
 - goal-setting, assessment and accountability: Policy makers need to ensure that school leaders have discretion in setting strategic direction and optimise their capacity to develop school plans and goals and monitor progress, using data to improve practice.
 - strategic financial and human resource management: Policy makers can enhance the financial management skills of school leadership teams by providing training to school leaders, establishing the role of a financial manager within the leadership team, or providing financial support services to schools. In addition, school leaders should be able to influence teacher recruitment decisions to improve the match between candidates and their school's needs (emphasis added).
 - collaborating with other schools: This new leadership dimension needs to be recognised as a specific role for school leaders. It can bring benefits to school systems as a whole rather than just to the students of a single school. But school leaders need to develop their skills to become involved in matters beyond their school borders (OECD, 2008a, p. 10).

The intent of the "New School" reforms, including the recently announced restructuring of education administration (described in the section of this report on Governance and Management), goes some way towards enhancing the role of school directors in ways that are consistent with the OECD report (OECD 2008a). Nevertheless, the reforms do not go far enough in giving school directors the authority and responsibility "to influence teacher recruitment decisions to improve the match between candidates and their school's needs" (OECD, 2008a, p. 10). While beyond the specific focus of this report on improving efficiency, the role of school directors in Greece also remains limited in the critical area of "supporting, evaluating and developing teacher quality".

Many countries that have strengthened the role of school leaders in human resource management have at the same time retained centralised control of the overall civil service parameters of human resource policy to ensure compliance with basic standards of quality, ensure equity and fairness. Therefore, the OECD recognises that Greece must maintain similar overall controls, consistent with laws and policies on employment in the public sector.

Training of school leaders to assume increased responsibilities must be a priority (see Boxes 1.3 and 1.4). School leaders must be empowered with the legitimacy and authority that will allow them to actually lead their schools. Legitimacy may come in part from the way in which they are appointed, and the participation of the whole school community (local authorities, the local civil

Box 1.3 Study of training needs of school directors

The Pedagogic Institute conducted a recent (October 2010) training needs analysis of 3 435 school directors (i.e. 24% of total) of primary and secondary institutions, and of all subject specialisations. The following is a summary of the results: (1) The majority of school directors are men over 41 years old, with many years of teaching experience. (2) Secondary school directors are more equipped than primary school directors. (3) Most school directors say that their school is not appropriate for a training centre. (4) 49.7% have only a first degree and 13 % have a Masters' degree. (5) 68% self-declare that their knowledge of ICT is Good, Very Good and Excellent. (6) With regards to their participation in professional development programmes in the past, they express their dissatisfaction about its Content (62.7%), Organisation (56.65%) and Methodology (60%). (7) Thematic areas that they consider (from a closed list) as most important to address in their professional development are: modern educational approaches, use of new technologies, subject-specific educational methodology, classroom problem management, development of positive relationships with pupils and parents, and at the bottom of the list: intercultural education, counselling and career counselling, and self-evaluation of school unit. (8) The thematic unit they suggested themselves in an open question was "Administration and Educational policy". (9) Most important incentives for participation in professional development (from a closed list) are: financial remuneration, training should take place in the morning (during curriculum time) and teachers should have leave to attend, and theory linked with practice. (10) The incentive they suggested themselves in an open question was: "suitable-experience trainers".

Source: www.mpratis.gr/11/epi2.pdf



Box 1.4 Distributed school leadership from the OECD's Improving School Leadership

Effective school leadership is not exclusive to formal offices or positions; instead it should be distributed across a number of individuals in a school. Principals, managers, academic leaders, department chairs, and teachers can contribute as leaders to the goal of learning-centred schooling. The precise distribution of these leadership contributions can vary. Such aspects as governance and management structure, amount of autonomy afforded at the school level, accountability prescriptions, school size and complexity, and levels of student performance can shape the kinds and patterns of school leadership. Thus principals must not only be managers but also leaders of the school as a learning organisation. They interact with teachers to create a productive, cohesive learning community. Source: OECD, 2008a.

society, parents, teachers, other staff, and even students in upper secondary education) may prove important to achieving this goal. But legitimacy, as well as authority, also comes from recognised competence. Therefore, for reasons of legitimacy and authority, but also for reasons of efficiency and effectiveness, the training of school leaders should be swiftly prepared. Full priority, in terms of training, should be given to the training programme of school leaders.

The training programme of school leaders should promote their ownership of the education reform. The principles of the "New School" should therefore be a major inspiration for such a programme. However, the focus must be targeted at the acquisition of practical managerial competences, as far as pedagogic and resource administration, and personnel management are concerned. Methods for dealing with the problems of student diversity and a multi-ethnic school, for selecting the best possible teachers, for eliciting the best performance from the staff (through evaluation, training and motivation and improvement strategies) and for efficient resource management must be at the core of the training programme. The programme must also envisage subsequent inservice training activities.

Consolidation of school units into clusters, as recommended in the following section, and the suppression of most layers in the regional administration of the Ministry should allow the allocation of some staff to school clusters. These staff members would carry out some supporting administrative and bureaucratic tasks, so that the school leaders may actually concentrate on pedagogic management. They could also provide some technical advice on specific information-management issues.

To support school leaders, a new role (and new recruitment criteria) should be conferred to school advisors. School advisors should become part of a support network, which could also incorporate education science or pedagogic university departments. School leaders could seek assistance in solving problems from such a network. This network could also be involved in developing school plans for teacher training. School advisors should be recruited on the basis of their competence for handling this job and not on other criteria, however objective and relevant for developing a teaching career they may be.

Summary of recommendations

Short term

- Increase teachers' workloads to the EU and OECD averages by 2015. Focus on increasing the workloads of the most experienced teachers. Implement increases in workloads on a step-by-step basis in the context of the implementation of "New School" reforms and consolidation of the school network. Avoid one-size-fits-all applications, but implement changes in the context of other reforms.
- Make professional development of school directors and directors of newly formed school clusters a central priority. School leaders must be empowered with the legitimacy and authority to actually lead their schools.
- Focus professional development of school directors on developing skills in personnel management, providing disadvantaged schools with greater resources with which to recruit effective teachers, and improving information flows and monitoring the labour market for teachers. Link professional development systematically with the roll-out and implementation of major reforms. Give more emphasis to:
- training for teams from schools (e.g. several teachers, the school director, school advisors, etc.). The chances that teachers will
 be able to adapt knowledge and skills gained in the training are likely to increase if there is a support network when they return
 to their schools;
- linking with and supporting other initiatives, such as the roll-out of full-day primary schools; and
- training and support for schools that have recently been merged or consolidated.
- Complement the centrally-led approach to professional development with a more local, decentralised, approach, based on the
 articulation of school needs, preceded by the evaluation and examination, at school level, of those needs and of the ways to
 meet them.



- Link the development of school professional development plans with the results of the Self-Evaluation Pilot project (see the section on Assessment and Evaluation).
- Develop school support networks at the directorate and regional levels, involving school advisors, training centres and university departments, to assist the schools in designing and implementing professional development plans. Use trainers in the current large scale professional development initiative (e.g. category "B" trainers) to build the capacity for ongoing professional development at the prefecture/department level and at the level of school clusters.

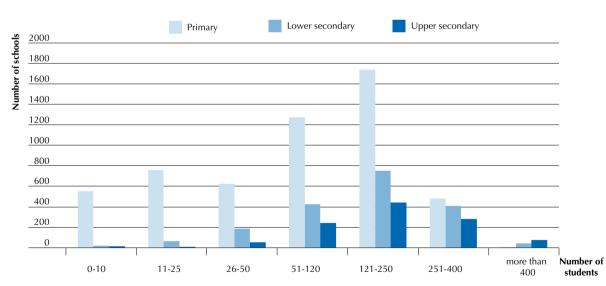
Medium term

- Allocate funding to school units or school clusters to assist in development of professional development plans and to ensure that training is accessible to all teachers.
- Provide training for school advisors to support school directors in assuming broader responsibilities as instructional leaders, school self-evaluation, development of professional development plans, and other tasks.
- Improve information flows and monitor the teacher labour market.
 - Post all teaching vacancies at the region level.
 - Create websites where the information is centralised.
 - Use tools for monitoring and projecting teacher demand and supply under different scenarios.

RATIONALISATION OF THE SCHOOL NETWORK

Inefficient network of small schools, low number of students per teacher, and small class size

Greece is a country of small schools. More than 1 300 primary schools have fewer than 25 pupils and more than 250 lower secondary schools and 70 upper secondary schools have fewer than 50 students. Few schools enrol more than 400 students, and these schools are mainly at the upper secondary level (Figures 1.9 through 1.16b).





Number of general education schools, by level and school size (2010)

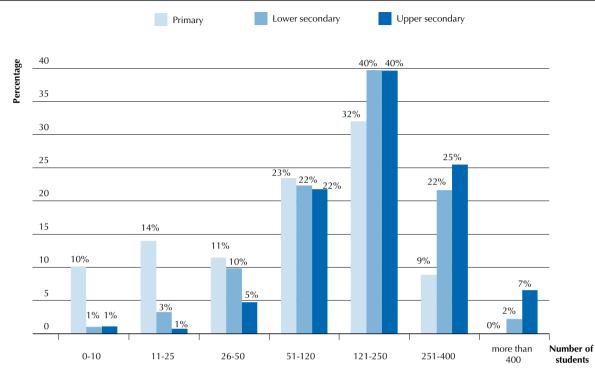
Note: Only eight primary schools in Greece have more than 400 students. Source: Ministry of Education, Lifelong Learning and Religious Affairs.

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The geographic diversity of Greece presents major challenges in any effort to improve the efficiency and effectiveness of the school network. For example, more than half (54%) of Greek primary school students are in two regions: 34% in Attica, concentrated in the city of Athens, and 20% in Central Macedonia, concentrated in the city of Thessaloniki (Figure 1.11). The remainder of the primary school population is dispersed across thousands of communities (now organised into 325 prefectures). Greece encompasses one of the most mountainous regions in Europe. Only 227 of the thousands of islands are populated, and only 78 of those hold more than 100 people. Even in the populous regions of Attica and Central Macedonia, there are many small schools in isolated mountainous areas or on islands.

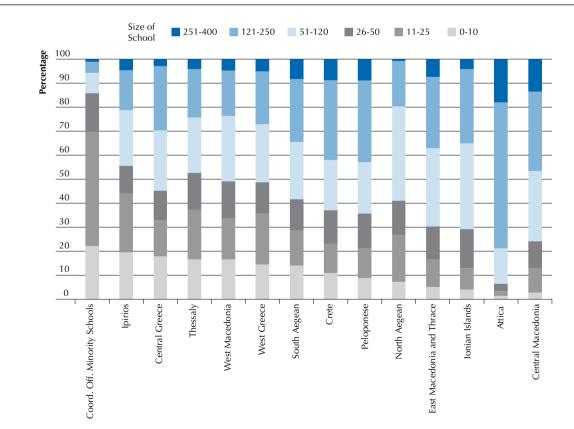


Figure 1.10 Percentage of general education schools, by level and school size (2010)



Source: Ministry of Education, Lifelong Learning and Religious Affairs.

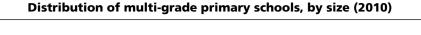
• Figure 1.11•

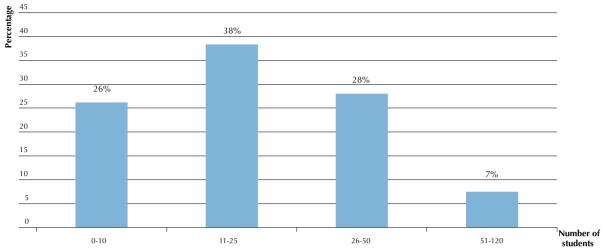


Percentage of primary schools, by size and region (2010)

Source: Ministry of Education, Lifelong Learning and Religious Affairs.

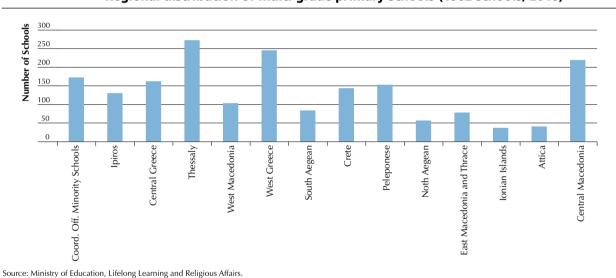






Source: Ministry of Education, Lifelong Learning and Religious Affairs.

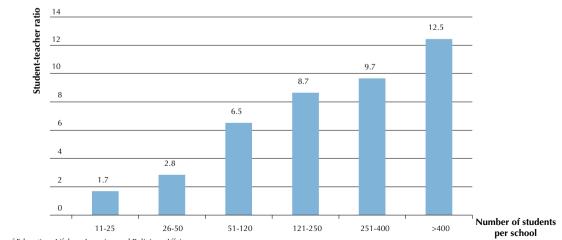
Figure 1.13



Regional distribution of multi-grade primary schools (1902 schools, 2010)

• Figure 1.14 •

Student-teacher ratios in primary schools with more than six teacher posts (2010)

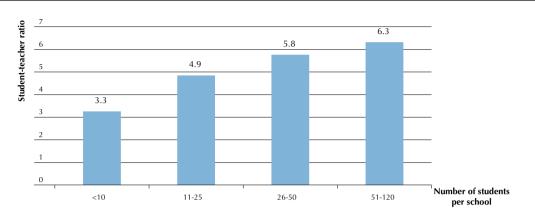


Source: Ministry of Education, Lifelong Learning and Religious Affairs.



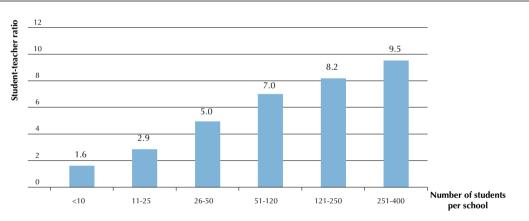
• Figure 1.15 •

Student-teacher ratios in multi-grade primary schools with six or fewer teacher posts (2010)



Source: Ministry of Education, Lifelong Learning and Religious Affairs.

Figure 1.16a

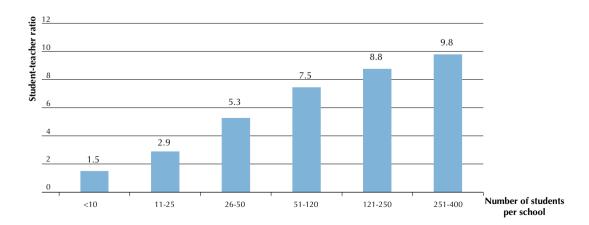


Student-teacher ratios in lower secondary schools (2010)

Source: Ministry of Education, Lifelong Learning and Religious Affairs.



Student-teacher ratios in general upper secondary schools (2010)



Source: Ministry of Education, Lifelong Learning and Religious Affairs.

Current reforms

In January 2011, the Minister announced a public consultation on the criteria for consolidating school units for the school year 2011/12, "to make changes to the quality of the education and reducing waste, making use of existing infrastructure for the implementation of innovative methods of instruction for all pupils of territories and the facilitation of teachers to provide quality educational services" (Hellenic Republic, Ministry of Education, 19 January 2011). The Ministry undertook this process under the authority of an existing law (Law 1566/85). Although the legal authority for school consolidation and mergers has existed for some time, the authority had not been used extensively until this year. The intent is to conduct a school mapping exercise every year. The *Kallikratis* changes in the general administrative regional structure (described earlier) gave an additional impetus for changes because the new, bigger municipalities, under the authority of the Ministry of Interior, have responsibility for school facilities, transportation and certain other non-educational functions of schools, and the new, fully self-governed regions have increased responsibilities for their schools.

The Ministry emphasised that it was merging or consolidating schools for educational (pedagogical) reasons, not primarily for economic/efficiency reasons. As outlined in the consultation document, the objectives were:

- at the primary level, to establish robust schools that will have the possibility, and the required physical infrastructure, to support innovative activities undertaken under the "New School" initiative;
- at the secondary level, to establish schools with the laboratory infrastructure, adequate teaching staff, and minimum number of students necessary to operate all the planned specifications and guidelines of the "New Upper Secondary School" to be introduced beginning in September 2011; and
- along with the pedagogical reasons, to consolidate and rationalise use of existing educational resources, and to address the
 problem of unequal availability of educational opportunities because of multiple and fragmented multi-grade schools that are
 unable to provide the anticipated and required quality of education.

Box 1.5 All-day schools

The goal of the Ministry of Education is that all primary education schools will become all-day schools with a unified educational programme. In the 2010/11 school year, the Ministry implemented the new model in 801 pilot schools, enrolling approximately 30% of the primary school students and distributed throughout Greece according to the student population of each region. The pilot school programme (co-financed by EU Structural Funds) included:

- expansion of the compulsory school duration
- Introduction of the teaching of English Language in the 1st and 2nd grade
- introduction of Information and Communication Technologies (ICT)
- introduction of Aesthetic Education (art, music and theatre)
- introduction of cultural activities groups
- enhancement of the "flexible zone" for interdisciplinary and creative activities

All the above is now available to all students during the morning programme. In some places, they are available to students who attend the optional afternoon programme.

Specifications for the school-mapping exercise were:

- The number of pupils per class should not exceed the legal requirements of a maximum of 25 in primary, and up to 25 +10% in secondary education.
- The goal is to have schools with 12 classes (posts) (e.g. 12 classes with a maximum of 25, for 300 students at the primary level).
- The consolidations should not lead to oversized schools. The total number of pupils in merged schools should not exceed 400 children. There are a few cases where schools resulting from mergers will have more than 400 students, but none exceed 500.
- The process should take into consideration factors such as demographic trends, length of travel distances and travel conditions if students were to attend consolidated schools.

While the goal was school units with 12 posts, in some cases, particularly in mountainous regions and on small islands, schools with six or fewer posts were necessary. Consolidation of multi-grade schools in isolated areas was to occur only where conditions permitted (Hellenic Republic, Ministry of Education, 19 January 2011).



The mapping process was the responsibility of the 13 regional directors in consultation with municipal authorities. The regional directors made recommendations to the Ministry where the final decisions were taken. Discussions among the OECD team and several regional directors revealed that most had begun talks about the need to consider closing or consolidating small, low-enrolment schools at least two months earlier with regional stakeholders (teachers and school leaders, parents, community leaders, and mayors of the new municipalities established through the *Kallikratis* changes).

Although this is a difficult and often contentious process, the regional directors reported that there was general acceptance of the realities that required changes. In January and February 2011, the reactions of teachers unions were far more vociferous, with public demonstrations culminating in a strike in late February. The unions obviously were concerned about the potential loss of jobs. They dismissed the Minister's claims that the changes were primarily for pedagogical reasons and saw them more as another example of the changes being forced on Greece by the "Memorandum" – the tripartite agreement between Greece and the EU, the European Central Bank and IMF.

Results of the consolidation process, announced by the Ministry in early March, were:

- 1 933 schools were consolidated to form 877 schools;
- at the primary school level, 1 523 schools were consolidated into 672 schools. Among the schools that were merged or closed:
 169 were one-, two- and three-post schools; 98 had already closed; and 18 had no students enrolled. The consolidation of primary schools resulted in 120 new schools with six posts and 61 schools with 12 posts; and
- at the secondary level, 410 school units were consolidated into 205 schools. Among the schools that were merged or closed, 30% had fewer than 35 potential students.

The changes resulted in a net reduction of approximately 2 000 positions, 75% at the kindergarten and primary levels and the remainder at the secondary level. In many cases, redundant teachers were reassigned to consolidated schools. In several cases, redundant secondary teachers of specific subjects, such as English, ICT and music, were reassigned to primary schools.

Observations on the reforms

Greece must continue to prioritise the school network to make possible both improved educational outcomes and significantly improved efficiency in the delivery of educational services (Boxes 1.6 and 1.7 and Table 1.8). The Ministry must make school mapping and rationalisation an ongoing core planning responsibility in each of the 13 regions, not a process that begins late in the year, as it did in 2010 and 2011. To support the rationalisation and consolidation of the school network, the Ministry must step-up professional development of school directors and teachers as well as other initiatives to achieve more efficient and effective service delivery, notably in remote and isolated areas.

The Ministry's intent is to rationalise the school network over time toward the goal of having schools throughout Greece provide the full-range of educational opportunities embodied in the concept of the "New School." At the primary level, this would involve a region-by-region, step-by-step rolling out, to all schools, of the all-day school model, drawing from the experience of the 801 pilot schools. The current all-day pilot schools, distributed throughout the 13 regions in relation to the size of the student populations, enrol approximately 30% of the total primary school population (Box 1.5). The OECD team and seven of the 13 regional directors discussed both the consolidation of schools within their regions and the all-day pilot schools.

The data on current school size (Figures 1.9 through 1.16b) point to the wide gap between the Ministry's goal of achieving the scale of 12-post schools (a maximum of 300 students at the primary school level) and, at a minimum, six-post schools (150 students) for all-day schools. At the same time, the pilot school appears to be a high-cost model, depending on special teachers for the supplementary curriculum (English language, ICT, art, music, etc.). Currently these teachers are paid from EU project funds.

Moreover, the great number of small schools (and, among these, multi-grade schools) together with the country's geographic diversity underline the challenges Greece must overcome in achieving significant financial efficiencies from school consolidation (e.g. the cost for transportation of pupils may exceed the savings made from more efficient use of personnel). The greatest challenge, however, is in achieving efficiencies that will not have negative educational, social and economic impacts.

It was not clear from the information available at the time of this review whether the Ministry was employing more cost-effective models where six-post schools are not feasible. Presumably, multigrade schools will remain an important element of the school network. If not already underway, the Ministry of Education should develop new models for very small schools (fewer than six posts) so that the goals of the "New School" initiative and full-day schools can be achieved, but in a far more cost-effective manner than envisioned in the 801 pilot schools. These could include:

- adjustments in teachers' and school leaders' roles and responsibilities and workloads to make possible more flexible, shared roles and multidisciplinary assignments;
- re-designing the curriculum to be more multidisciplinary and to facilitate new modes of teaching;



- focused professional development of teachers in small, multigrade schools;
- greater efforts to provide on-site capacity for increased use of digital materials, e-learning and other technology-based support; and
- special training for school directors to prepare them for both institutional leadership and leadership in the sometimes challenging social and economic conditions of isolated rural communities.

School clusters are an important alternative for improving services and efficiencies in cases where it is necessary to maintain some small school units. The recently announced reforms in the administrative structure envision such multischool units. School clusters should group a set of schools (within a geographical perimeter that allows for frequent meetings between teachers and managers for all schools) under the supervision of one school, which becomes the cluster centre, where the school leader and the managing bodies are located.

Box 1.6 Lesson from Portugal on school consolidation

Careful planning and preparation, conducted under a very demanding agenda, was a key factor for the success of the school consolidation programme in Portugal, where about 3 000 school units were closed down in four years. The use of transparent and objective criteria (based on performance and size) and timely information to local authorities and parents were also very important. The notion was conveyed that the "new school" (resulting from the merger or to where pupils are being transferred) is a better school, that it has more to offer (full-day, curricular enhancement, better facilities), and this certainly helped gain support for the whole process.

In Portugal, in the aftermath of the first (experimental) cycle of school evaluation, contracts for autonomy were signed between the Ministry Education and the school clusters transferring competence to schools. The law regulating autonomy and management of schools establishes the contract of autonomy, linked to school evaluation (both self-evaluation and external evaluation) as a fundamental tool for the system's governance.

Source: Santiago P., et al. (2009).

Box 1.7 Lesson from Portugal on vertical clusters

The institution of school clusters was a fundamental to build up management capacity in schools, especially because of the dispersion of the school network and the number of small school units. School management units were reduced from 12 000 to 1 300. Initially, "horizontal" clusters (i.e. school clusters made up of primary schools) were admitted, but later on only "vertical" clusters (in which primary schools come under the supervision of a lower-secondary school) were accepted. The move towards "vertical" clusters was a crucial factor in upgrading school leadership and making school management more qualified.

Source: Santiago P., et al. (2009).

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Clusters may be "horizontal" (grouping schools of only one level of education as foreseen in the current reform), but much may be gained from "vertical" clusters, in which a school providing at least lower secondary education takes up an overseeing role. The lower secondary school acting as the centre of the cluster would take in the students completing primary education in the schools that are part of the cluster. School clusters can have a range of dimensions, according to their geographical setting, but concentration should be kept within limits that allow for effective and efficient school management (maximum size/capacity could be determined at around 2 500 students).

The school cluster encourages a more efficient management of resources, notably human resources. The professional relationship with teachers should be established not with the individual school unit but with the school cluster, allowing for a more flexible and efficient allocation of the teaching staff. Larger units also allow a more professional and qualified management to develop and can recruit support personnel.

School clusters could also be the appropriate answer for differences in school performance. Both disadvantaged schools, which are especially deleterious to disadvantaged students, and generally underperforming schools have much to gain from becoming integrated in larger management units, where their problems may find better chances of being adequately addressed.

School clusters should therefore form the basis of a new system of school governance, underpinned by stronger leaderships entrusted with greater autonomy and supported by intermediate managers and school advisors.

Summary of recommendations

Short term

- Make rationalisation of the school network a central priority of the Ministry of Education.
- Assign the task of school mapping and rationalisation to each of the 13 regional directors as an on-going core planning responsibility, not a process that begins late in the year, as it did in the 2010/11 academic year.
 - Pursue a differentiated region-by-region strategy for rationalizing the school network, recognising significantly different geographic and demographic conditions in each region (urban versus rural/mountainous, mountains versus islands, etc.). The existing centralised, one-size-fits all approach to education policy is a significant barrier for adapting to this variety of conditions (e.g. for addressing the needs of multigrade schools).
 - Set goals and benchmarks for each region to improve the efficiency of their use of human resources and the rationalisation of the school network.
 - Establish performance agreements between the Ministry and each regional director for making step-by-step progress toward agreed goals.
- Set clear targets for a minimum of pupils (not only the minimum number of posts) for schools at each level of education. Develop specific models (see below) including school clusters to accommodate circumstances in which these minimums cannot be achieved because of geography and other circumstances. Minimum sizes could be in the range of:
 - 75 pupils for primary schools;
 - 150 students for lower-secondary schools; and
- 250 students for upper-secondary schools.
- Implement school clusters as an essential means of improving services and efficiencies in cases where it is necessary to maintain some small school units.
- Step up professional development of school directors and teachers as well as other initiatives to achieve more efficient and effective service delivery, notably in remote and isolated areas, to support the rationalisation and consolidation of the school network (see previous section of this report).

Belgium (Fl.)	School communities have been created as voluntary collaborative partnerships between schools. They aim to have common staffing, ICT and welfare resources management.					
Denmark	Co-operation in post-compulsory education has been promoted by way of the creation of administrative groups that can be set up locally or regionally between self-governing institutions to optimise their joint resources.					
England	A variety of approaches to co-operation are stimulated by the government – federations of schools, national leaders of education, school improvement partners, etc.					
Finland	A 2003 legislative reform has enhanced school co-operation aiming to ensure integrity of students' study paths.					
France	"School basins" have been implemented to ensure collaborative partnerships between schools to work together in student orientation, educational coherence between different types of schools, common management of shared material and human resources.					
Hungary	Micro-regional partnerships based on economic and professional rationalisation were created in 2004 and have resulted in the spreading of common school maintenance in almost all Hungarian micro regions. These networks for co-operation are the scenes of professional and organisational learning in a way that function as new forms of education governance and efficient frames of innovation.					
Korea	Small schools cooperate to overcome problems of size in teacher exchange, curriculum organisation, joint development activities and integrated use of facilities.					
Netherlands	In primary education, "upper management" takes management responsibility for several schools. About 80% of the primary school boards have an upper school management bureau for central management, policy staff and support staff.					
New Zealand	New Zealand School clusters based around geographical communities and communities of interest have been facilitated.					
Northern Ireland	Post-primary schools share provision of courses with other schools and further education colleges. "School Collaboration Programme" focuses on school co operation for increased curricular access on the local level. "Specialist Schools" model requires post-primary specialist schools to partner with primary school and at least one other post-primary.					
Norway	Tendency to merge several schools to form an administrative unit governed by a school principal. It is quite common for principals to network in the municipalities.					
Portugal	Common patterns of school governance are that schools are grouped together with a collective management structure. Executive, pedagogical and administrative councils are responsible for their areas.					
Scotland	Important political promotion of collaboration. "Heads Together" is a nationwide online community for sharing leadership experience. Integrated community schools.					
Sweden	Municipal directors of education steer principals. Most of them are members of directors of education steering groups where strategy, development and results are discussed.					

Table 1.8 School collaboration in different countries (2008)

Source: OECD (2008a), Table 2.1. From Country Background Reports, available at www.oecd.org/edu/schoolleadership.



- Develop new models for very small schools (fewer than six posts) that will make it possible to achieve the goals of the "New School" initiative and full-day schools, but in a far more cost-effective manner than envisioned in the 801 pilot schools. This could include:
- adjustments in teachers' and school leaders' roles and responsibilities and workloads to make possible more flexible, shared roles and multidisciplinary assignments;
- re-designing the curriculum to be more multidisciplinary and to facilitate new modes of teaching;
- focused professional development of teachers in small, multigrade schools;
- focused efforts to provide on-site capacity for increased use of digital materials, e-learning and other technology-based support; and
- special training for school directors to prepare them for both institutional leadership and leadership in the often challenging social and economic conditions of isolated rural communities.

Medium term

- Develop an integrated programme budget for each region, prefecture/directorate, and school unit or school cluster, including:
 (1) budgeted positions;
 (2) current budget, including textbooks and other materials;
 (3) investment budget; and
 (4) the budget for building maintenance, transportation and other services provided through municipalities and the Ministry of Interior.
- Transfer the allocation of funds for functions supported through the Ministry of Interior (i.e. transport of pupils, maintenance of schools, etc.) to the Ministry of Education, Lifelong Learning, and Religious Affairs.

Longer term

 Consider making changes to educational budget development and execution. The budget allocations to regions should be changed to a per-student funding formula (weighted by level, socio-economic conditions of population, and other special conditions). The formula could include elements for teaching positions, current budget and investments.

EVALUATION AND ASSESSMENT

Evaluation and assessment to improve school and system performance and efficiency

No reliable indicators are in place to provide information on the quality, efficiency and effectiveness of the Greek education system. The system cannot rely on consistent tools for measuring the quality and effectiveness of the education system and the actual achievement of learning outcomes, as there are neither external assessments of learning, based on standardised national assessments, nor external evaluations of schools and teaching. Students advance from grade to grade as they are assessed in schools by their teachers, and external examinations are only used to regulate tertiary education's admissions.

A comprehensive information system for planning and evaluation at the school, region and national levels is only in early stages of development.

Current reforms

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The Ministry of Education has made the project "Evaluation of the Educational Work of Schools: The Process of Self-Evaluation," one of its top priorities. A provision regarding evaluation of schools was included in the law passed in May 2010 (3848/201) which also included requirements regarding the conditions surrounding the employment of teachers, school directors, and others (see section on current references in the section on development and use of human resources). Section 32 of that law specified that:

- Each school unit will prepare an action plan with their educational goals for the school year by the end of September.
- At the end of each school year, the school will prepare a report that assesses: (1) the performance of the school as a whole; (2) its success in achieving the educational goals set in the action plan; and (3) the strengths, weaknesses and problems encountered during the school year. It will also include suggestions for improvement in the next school year.
- The action plan and the evaluation report, prepared under the responsibility of the director of the school unit, in collaboration with teachers and school advisors, is to be communicated to students and parents, posted online on the websites of the school and the education departments, and submitted to the Centre for Educational Research (KEE).
- The heads of education departments will prepare an action plan for each school year and submit reports to their respective regional directors of education. The project was first implemented in academic year 2010-11 on a pilot basis, and the Ministry has announced intentions to extend self-evaluation to all schools. The Ministry had made clear that the self-evaluation project is an effort to develop a culture of evaluation in a country where teachers have strongly opposed evaluation initiatives in the past.

The Ministry has made a major effort to integrate four separate databases from different units within the Ministry to provide a comprehensive information system regarding teachers, school directors, students and other school characteristics. For the first



time, the Ministry will have accurate information on every school, and the system allows schools to report to communities ("school card") and for education departments and regional directors to monitor and report on teacher vacancies and other matters.

Observations on the challenges when establishing a culture of evaluation

Greece faces a major challenge in developing a culture of evaluation, as external evaluations have historically been distrusted, particularly by the teaching profession. The pilot project on self-evaluation of schools is an important step towards developing a more comprehensive system of assessment and evaluation. Because an effective evaluation system is a critical missing element in Greece, the school self-evaluation project should continue as a central priority, and the model should be extended to all schools as soon as possible. But this is only a first step toward a more comprehensive evaluation policy framework. As illustrated in Figure 1.17, a comprehensive system involves multiple components.

Performance in schools is increasingly judged on the basis of effective learning outcomes. Such information is critical for knowing whether the school system is delivering good performance and for providing feedback for improvement. A comprehensive system of evaluation is a requirement not only for the development of improvement strategies at all levels (teacher, school, administration) but also for measuring the success in achieving the goals of reform and for establishing a regime of accountability. Evaluations and assessments are requirements for an equitable regime of accountability, efficient management, effective decentralisation, and for devolution of autonomy to individual schools (OECD, 2011a).

Although self-evaluation of school units is now being introduced progressively in Greece, and efforts have been made to establish objective criteria for this process, insufficient external validation and comparable data on student, teacher and school performance limit the effectiveness of these efforts and constrain management at all levels. Without such information, it is difficult to monitor the performance of schools and students and measure the achievement of learning objectives. Furthermore, there is no evident link between student assessment, school and teacher evaluation and consequences for those who have been evaluated. Overall, there is no evaluation culture that takes results as the first criterion, or the basis for improvement strategies and distribution of responsibility.

The OECD's *Evaluation and Assessment Frameworks for Improving School Outcomes* (OECD, 2011a) identifies the following issues that the Greek authorities will need to consider when establishing an evaluation system.

Implementation

Ensuring articulations within the evaluation and assessment framework

In developing policy, school assessment, teacher appraisal, and standardised national student tests to assess students' progress should be considered together, not only so any new policies work effectively towards achieving the goals of the evaluation and assessment framework, but also to create complementarities, avoid duplication, and prevent inconsistency of objectives.

Developing competencies for evaluation and for using feedback

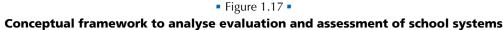
The effectiveness of evaluations and assessments depend, to a large extent, on the skills of those who design and undertake evaluation activities and of those who use the results. Since evaluations can have significant consequences for those assessed, it is important to develop competencies and define responsibilities for successful feedback mechanisms in the evaluation process.

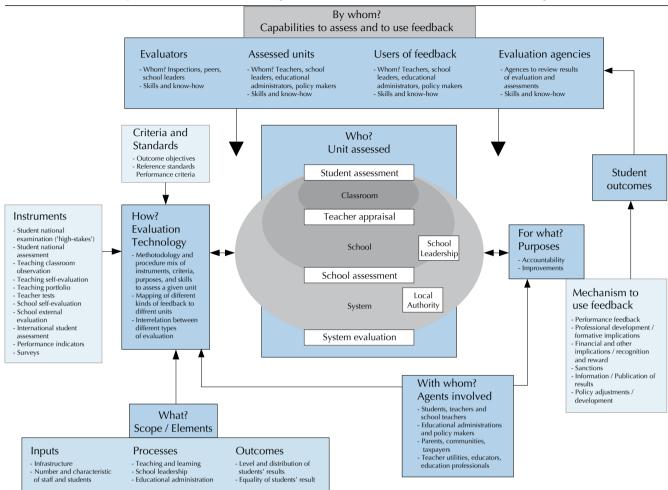
In addition, competencies for using feedback to improve practice are also vital to ensure that evaluation and assessment procedures are effective. Since teachers should be involved in improving schools, it would be useful to include training for evaluation in initial teacher education alongside the development of research skills. Similarly, the preparation to become a school leader is expected to include educational leadership with some emphasis on feedback mechanisms.

Securing links with classroom practice

Evaluation and assessment frameworks have no value if they do not lead to the improvement of classroom practice and student learning. Securing effective links to classroom practice is a key policy challenge in the design of evaluation and assessment frameworks.

A number of strategies can help to reinforce the linkages between the evaluation and assessment framework and classroom practice. A strong emphasis on teacher evaluation for the continuous improvement of teaching practices in the school could reinforce such a link. Another lever is to involve teachers in school evaluation. The system of self-evaluations being introduced in Greece could help to strengthen collective processes with responsibilities for teachers. Another important instrument is ensuring that teachers are seen as the main experts not only in instructing but also in assessing their students, so that teachers feel the ownership of student assessment and accept it as an integral part of teaching and learning. Teachers should also be supported in their daily practice by defining clear student goals and grading criteria, and by building capacity through adequate training on assessment literacy. These strategies build teacher professionalism.





Source: OECD (2009), OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes, Education Policy Committee, 14 October 2009, Figure 1, p. 6. (www.oecd.org/dataoecd/17/3/44568070.pdf)

Evaluation and assessment frameworks will not be able to improve student learning if they do not identify appropriate incentives to prompt change and provide focused support for teachers in classrooms. Indeed, the focus on improving linkages to classroom practice will be one of the most critical points for designing an effective evaluation system in Greece.

Overcoming the challenge of implementation

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Implementation difficulties may arise as a result of a wide range of factors. Since there is no tradition of evaluation in Greece, the system is still unprepared to undertake large-scale evaluations because of the limited professional expertise of those with responsibility to evaluate. Other obstacles may be a sense of unfairness perceived by those being evaluated, excessive bureaucratic demands on schools, lack of resources to implement evaluation policies, or inadequate dissemination of evaluation results by the media.

It is therefore important to overcome the challenges of implementation. This includes reconciling the diverse interests of stakeholders, carefully analysing policy alternatives and their likely impact and discussing them with stakeholders to build a consensus. It is important to explore the role of bargaining processes and of incentive structures to facilitate compliance with new policies, to ensure policy implementation in the longer term. Other strategies include pilot projects before wide-scale implementation.

The Greek authorities need to recognise that reaching agreements on the design of the evaluation and assessment framework requires time for discussions and consultations with all stakeholders. In addition, developing expertise in the system, including training evaluators is expensive and requires time; conducting evaluation processes means additional workload for school agents; and aligning broader school reforms, such as professional development opportunities with evaluation and assessment strategies, requires more educational resources.



Student assessment

Aligning educational standards and student assessment

A key element of an evaluation system, which is now missing in Greece, is a means to assess student learning outcomes through a national student assessment. There are challenges in developing an effective student assessment within the evaluation and assessment framework, such as aligning educational standards and student assessment, balancing external assessments and teacher-based assessments of learning, and integrating student-formative assessments. While recognising these challenges, the OECD recommends that Greece designs a national system of student assessments that can be used, as appropriate, at multiple levels: the individual student, the classroom, the school, the region and the system. Any approach to student assessment needs to match the curriculum and the standards in order to have value in judging how well students are learning and in diagnosing school or student needs.

Part of the strategy may consist of developing large-scale standardised tests with a high degree of:

- validity the degree to which assessments and evaluations measure what they are intended to measure;
- reliability the consistency and stability of results across student populations; and
- usefulness how policy makers, school leaders and teachers make sense of and respond to assessment and evaluation results.

In addition, efforts should be directed towards developing teacher capacity in assessing against standards, providing detailed guidelines on marking assessments, and strengthening moderation processes between teachers and schools.

Balancing external and teacher-based assessments of learning

An important policy challenge is the design of student summative assessments, which provide a summary statement of student achievement at a particular point in time. Research shows that while summative assessments are primarily conceived to measure the outcomes of learning, they can, in turn, have a strong impact on the learning process itself. The impact of the university entrance exam on schooling and learning processes in secondary schools in Greece is a case in point. Different assessment policies and practices influence students' motivation, effort, learning styles and perceptions of self-efficacy as well as teaching practices and teacher-student relationships.

External assessment refers to standardised examinations that are designed and marked outside individual schools and normally take the form of a written test. The major advantage of external assessment is their reliability. They ensure that all students are assessed on the same tasks and that the results are measured by the same standards. Moreover, external assessments are usually conducted under supervision, which ensures that what is assessed is the students' own work. However, only a limited range of curriculum goals can be covered. The risk is that teachers may end up focusing on test-taking skills, especially when test results have a significant impact on students' futures, needs to be moderated as well.

Teacher assessment refers to continuous assessment of learning that is designed and/or marked by the students' own teachers. It is conducted internally in the classroom and counts towards a final grade or evaluation of the student. Teacher-based summative assessments may include different types of assessments, such as teacher-made tests, classroom-embedded assignments, project work and portfolios. Typically, teacher assessment is presented in the literature as having higher validity than external assessment. Because it is continuous, teacher assessment often allows for the measurement of important achievements could not be captured in a final examination, such as extended projects, practical assignments or oral work. However, teacher assessments are often perceived as unreliable. Test items and grading standards may vary widely between teachers and schools, so that the results of internal assessments will lack external confidence and cannot be compared across schools. There might also be a high risk of bias, i.e. the assessment is unfair to particular groups of students.

This indicates that a combination of teacher-based and external assessments would be most suitable to ensure maximum validity and reliability. Learning outcomes that can be readily assessed in external examination should be covered this way, whereas more complex competencies should be assessed through continuous teacher assessments. Strategies to improve the reliability of teacher assessment include using scoring guides, negotiated scoring criteria, external benchmarks, training for teachers, multiple judgements and external moderation. Another approach is to develop on-demand assessments, where teachers can draw from a central bank of assessment tasks and ask students to take the assessment when they consider that they are ready.

Integrating student formative assessment in the evaluation and assessment framework

Classroom-based formative assessment – the frequent, interactive assessment of student progress to identify learning needs and shape teaching – has taken on an increasingly important role in education policy. An important policy challenge is to find suitable strategies to integrate classroom-based formative assessment within the broader assessment and evaluation framework.

Strategies to achieve such integration include a closer interface between formative assessment and summative assessment. For example, countries may strengthen teachers' assessment roles. Because teachers are able to observe students' progress toward the



full range of goals set out in standards and curriculum over time and in a variety of contexts, their assessments help to increase validity and reliability of summative assessments. Countries can also consider developing "complex assessments" combining performance-based assessments with standardised assessments. Performance-based assessments are better able to capture complex student competencies, such as reasoning and problem-solving skills, while standardised assessments increase reliability of results. Another priority could be to use standardised assessments formatively in the classroom.

An additional strategy is the development of test banks, allowing teachers to choose from centrally developed assessments. These tests may provide more detail and be delivered in a more timely fashion so that teachers may use the results formatively. Closer integration of formative assessment can also be achieved through ensuring that teacher evaluation and school evaluation respectively assess teachers' ability to engage in student formative assessment and schools' approaches to formative assessment.

Teacher evaluation

The quality of teaching is generally regarded as the most crucial in-school factor for student achievement, and therefore it must be an object of both school and teacher evaluation. Class observation can be a first step towards assessing, and improving, teaching quality.

It is essential to develop a consistent, credible and practical teacher-evaluation system. School leadership has to be empowered and equipped to take responsibility over the process of teacher evaluation, although an external intervention should be considered, at least to check the school's evaluation procedures. Teacher evaluation should be designed for improvement through professional development, notably through an individual training plan, aligned with the school's training plan, if possible in agreement between the teacher and the school management.

Combining the improvement and accountability functions of teacher evaluations

Teacher evaluation has typically two major purposes: first, to improve practice by identifying a teacher's strengths and weaknesses for further professional development. This improvement function involves helping teachers learn about, reflect on, and adjust their practice. Second, it holds teachers accountable for their performance in enhancing student learning by evaluating performance at nodal points in a teacher's career. This accountability function typically entails performance-based career advancement and/or salaries, bonus pay, or the possibility of sanctions for underperformance.

Combining both the improvement and accountability functions into a single teacher-evaluation process raises challenges. When the evaluation is oriented towards improving practice within schools, teachers are typically open to identifying their weaknesses, in the expectation that such knowledge will lead to more effective decisions on developmental needs and training. However, when teachers are confronted with potential consequences for their career and salary, they may be less likely to accept performance evaluations, and the improvement function may be jeopardised. In practice, countries rarely use a pure form of teacher evaluation; instead they use combinations of assessments that integrate multiple purposes and methodologies.

Accounting for student results in the evaluation of teachers

Specifying the consequences of evaluations for career progression is a complex matter, as it may incite the resistance and opposition of teachers and their unions. Nonetheless it is critical that evaluations have meaningful consequences to those evaluated, as it is the only way to ensure that they are taken seriously. The system of evaluation should provide links between evaluation for improvement and evaluation for career progression. Furthermore, evaluation is the only consistent way of distinguishing among teachers. In a fiscal situation that leaves little room for rewards, it is very important to make sure that the most diligent and effective teachers are compensated fairly.

Using teacher evaluation results to shape incentives for teachers

Evaluation of teacher performance can also be used to determine career advancement, reward good performance or establish sanctions for underperforming teachers. In doing so, it also helps schools to retain effective teachers and makes teaching an attractive career choice.

However, it should be noted that the issues related to developing a closer relationship between teacher performance and rewards are controversial in all countries. While research has produced mixed results, there seems to be agreement that the design and implementation of performance-based rewards are crucial to their success. Challenges include developing fair and reliable indicators of performance, training evaluators to fairly apply these indicators, and articulating how, and against what criteria, teachers are assessed.

School evaluation

The Greek authorities should accelerate their initiative on school self-evaluation with a view to designing and implementing a comprehensive system of assessment and evaluation based on results and outcomes (more than on input and procedure) in order to improve the provision of education and to promote accountability across the whole education system.



It is important that the system be considered credible and legitimate by all stakeholders. For this purpose, it must rest on internationally validated methods, criteria and procedures; make use of trained and recognised evaluators; and produce equitable, transparent and effective results.

School self-evaluation is an important first step in the system of evaluation, to build trust and introduce evaluation as a regular practice in the organisational culture of schools. The Greek authorities should pursue their initiative for school evaluation, and all school units should take part in this process. However, care must be taken that school self-evaluation is not designed and interpreted as a mere routine bureaucratic obligation. For that reason, self-evaluation must be organised so that it is comparable between school units and so that it can be validated and supplemented by external evaluation.

Therefore, a scheme for regular external school evaluations, for instance, once every four years, should be designed and implemented. This would facilitate using the self-evaluation results as a basis for establishing greater accountability for schools and their managers, so that ultimately schools may be granted more autonomy and may assume greater management responsibilities. External evaluations should cover:

- The quality and equity of education, including students' performance and learning achievements; the quality of teaching and assessment; and how the school handles student diversity.
- The school's organisation and management, including efficiency of resource management; the school's self-regulation and ability for self-improvement.
- The school's leadership, including its ability to set goals, plan for and obtain results, and co-ordinate, motivate, and elicit the best from all stakeholders. Implementing self-evaluation of schools as a tool to improve quality has been on the educational agenda in OECD and EU member countries for many years. Greece is now among those countries setting objectives and benchmarks. But policymakers should be aware that self-evaluation of schools is a highly demanding and time-consuming exercise. It requires high-quality school leaders, committed staff and critical friends. Unless the system to recruit school leaders changes dramatically, Greek schools look poorly prepared to implement self-evaluation successfully and productively. Teachers' unions are at best sceptical, at worst opposed, as they fear self-evaluation of schools will ultimately lead to evaluation of individual teachers, which they reject.

Aligning external and internal school evaluations

In many countries, there has been a shift from school evaluations that focus on compliance with central policies and procedures towards wider strategies of school improvement. External evaluation has achieved a much closer alignment with self-evaluation, partly due to its value for strengthening school autonomy.

Self-evaluation, as currently pursued in Greece, has the merit of being 'owned' by the school and, as such, responds directly to the school's specific needs and circumstances. However, self-evaluation for accountability is subject to inevitable tensions between rigour and depth on the one hand and a natural desire not to undermine the confidence of parents and superiors on the other. As a result, self-evaluation is more a tool for managing improvement than for large changes that challenge assumptions or arrive at conclusions that threaten key actors in the school's hierarchy. The external perspective in school evaluation, therefore, provides both distance from the internal dynamics of the school and objectivity, which can lead to greater rigour in the process.

Externality can be achieved in a variety of ways: who evaluates, what is evaluated and how, and the ways in which the results are agreed upon and communicated. These points must be explicit from the outset. Clarity about the nature of externality and about the contexts within which it is important should also be determined.

Balancing information to parents with fair and reasonable public reporting on schools

Access to credible public information about school performance has been a growing trend in recent years. In part, it results from the right of stakeholders, particularly parents, to know how well a school is performing, as part of a wider move towards more choice about which school their child can attend. There is also the belief that measuring and publicising student outcomes on a comparative basis will lead schools to focus on taking the action necessary to improve their relative performance. Thus the assumption is that greater accountability and transparency will help drive improvement.

The challenge is to harness the power of fair public quantitative comparative information that is set in a national performance context and that reflects broader student learning objectives. That implies developing a wider strategy that encourages school evaluation and school aspirations in relation to the wider educational agenda, whatever the test results.

Improving the data-handling skills of school agents

Gathering and analysing data from student assessments and satisfaction surveys is increasingly part of evaluation and assessment frameworks. In a number of cases, there are now well-established and sophisticated methods, available to principals, teachers and parents, that analyse standardised test results across schools in ways that allow fair comparisons to be made using student-level

Box 1.8 Lessons from Portugal on external assessment

In Portugal, external assessment of students' performance made crucial information available to policy makers. It improved the understanding of the system's problems and made specific measures to be taken. For instance, the process of school consolidation first targeted the poor performing among the small schools.

Handing information on student scores back to schools and stimulating reflection at the school level on such scores and on proposals for improvement was very important in introducing a new concern about student performance in schools. This, and political insistence on the notion that student results are the measure of the schools' and teachers' work, operated a positive change in the attitude of many teachers and schools.

On the other hand, the use by the press of student scores in upper secondary national examinations to build rather gross rankings of schools has proven harmful for the recognition of school's commitment to improvement.

Source: Santiago P., et al. (2009)

socio-economic data. Such data provide teachers with valuable diagnostic evidence about both student performance, and school performance, more generally.

In a range of countries, there is an increasing commitment by principals and teachers to the use such test data to improve student learning and their own accountability. Teachers use data formatively to identify individual students' strengths and weaknesses and engage in personalised teaching to promote subsequent progress. However, teachers often note the limitations of their knowledge to appropriately analyse and interpret student-performance data.

Consequently, the challenge is to ensure that all key people in schools have the necessary skills in data gathering, analysis and interpretation to understand the results of evaluations and to translate results into action. There is a need to improve the data-handling skills of principals and teachers across the board.

System evaluation

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The Ministry still lacks a sound information base for national decision making. The development of an accurate and manageable data system is an essential requirement for managing the education system at all levels and for formulating and implementing the envisaged reforms.

The lack of a reliable and comprehensive data system that covers management-performance indicators hinders policy making and implementation of reforms. The lack of an integrated system of evaluation, with data on quality and equity in relation to resources assigned to education, makes development of a coherent strategy for improvement all the more difficult.

Development of a high-quality database is a matter of great urgency. Currently, the Greek Ministry of Education has no reliable data on pupils, schools and teachers. The Ministry lacks critical information on the number of students, enrolment in schools, age, grade, field of study and other background information. Moreover, without a reliable database on enrolment of pupils, efficient monitoring of school attendance and learning during compulsory education is impossible. The Ministry also has poor information on the number of teachers, their qualifications and workload, status (permanent or temporary), age, salaries, etc. Lack of information on schools, regarding their location, enrolment, staff, type of school, pedagogical offerings, etc. is also an impediment. Trend data are lacking completely.

A reliable database contributes greatly to greater effectiveness in policy making, to more effective communication, and ultimately to greater acceptance and ownership of reforms. Without a reliable database, scientific evaluation of policies, identification of good practice and evidence-based policy making is impossible.

Computer-science experts from the University of Patras are in the process of building a new database, which will hold information about schools and could be accessed by different levels of the system (schools, regions, ministry) according to their needs. However, experts and practitioners familiar with the implementation of large IT programmes in ministries of education stress the importance of the involvement of the future users of these programmes. This is not the case in Greece. Solid co-operation between computer science experts and civil servants at all levels is needed to develop an efficient system, since it is the latter who know best what kind of information is required for policy making.

Efficient use of scarce resources is even more difficult for a ministry of education. As noted earlier, the Greek Ministry has only recently begun developing an effective information-management system. Critical data on the education system are either lacking or



unreliable. Lack of clear formulae for staffing schools and for allocating funds for operational expenses along with the distribution of responsibilities across different ministerial portfolios, administrative layers and municipal committees do not enhance efficient and transparent use of funds. A reliable database and an effective information-management system are excellent tools to increase efficiency and transparency.

Policy should be informed by a range of quantitative and qualitative measures. The challenge is to ensure that the measures of system performance are broad enough to capture the whole range of student learning objectives. Policy making at the system level needs to be informed by high-quality data and evidence, but not driven by the availability of such information.

Indicators and measures of system performance provide a good way of understanding of how well education is being delivered. Using these data, governments can analyse performance and identify priority areas for planning, intervention and policy. This typically entails the development of a system performance-measurement framework.

Indicators for high-level objectives for the education system should be augmented with measures for each, mapped out area under each objective. In addition data should be based on accepted definitions for all levels of education; the quality of data should be improved; research should be conducted on those 'gaps' where systematic collection is too costly or not feasible; and a long-term strategy to improve measurement tools for future information needs should be developed.

While countries often collect large amounts of data and statistics at the system level, these data are frequently underused. This is sometimes the result of insufficient consultation among interested stakeholders and agencies on how best to manage, integrate and present data for optimal use by different audiences.

There is a range of options to ensure the more effective use of existing information by key stakeholders in system evaluation. One option is to establish a protocol to share data system evaluation among key stakeholders. This may include data that are not available to the public, but that can be analysed and used, for example, for school or local government reviews. Another option is to build the analytical capacity, including statistical, analytical and research competencies at the national level to fully exploit existing information followed by clear, high-quality and timely reporting of results, customised for different audiences. For example, databases and technical materials are useful for researchers, but clear key messages on major results are helpful for local government. Schools will benefit from comprehensive feedback on student performance on national tests (e.g. by test area, by individual question, by class, by student group).

The challenge is how to best organise the collection and analysis of key information at the national level, to clearly communicate results of system evaluation and ensure the effective use of results by stakeholders throughout the system.

To summarise, without external evaluations and assessments it is difficult to monitor the performance of schools and their students and to measure the achievement of curricular objectives. The lack of external evaluations and assessments creates problems for governance and management at all levels and makes the design of education policy and the assessment of its implementation even more problematic. It also affects the development, implementation and monitoring of reforms.

The Ministry lacks a sound information base for:

- policy making and for assessing the implementation of reforms; and
- assessing the provision of education in terms of quality and equity and the use of resources assigned to education.

The Ministry lacks a comprehensive, integrated system of evaluation and assessment. In particular, there is no:

- standardised national assessment that could be used to compare performance among students, teachers, schools, or regions;
- linkages between student assessment, school and teacher evaluation; or
- culture of evaluation in the system that takes results as the first criterion that forms the basis of improvement strategies and the distribution of responsibility.

An integrated system of evaluation is necessary for:

- developing a coherent strategy for improvement at all levels (teacher, school, administration);
- monitoring the performance of schools and students and measuring the achievement of learning objectives;
- measuring the accomplishment of reform goals and the improvement of the regime of accountability;
- providing a means for accountability regarding equity, efficient management, effective decentralisation and devolution of autonomy to the schools; and
- improving teacher evaluations, so that they are fair, transparent and have clear consequences.



Summary of recommendations

Short term

- Accelerate the initiative on school self-evaluation with a view to designing and implementing a comprehensive system of assessment and evaluation based on results and outcomes (rather than on input and procedure) in order to improve the provision of the education service and to promote accountability across the whole education system. Specifically, the Ministry should:
 - organise the self-evaluation of schools so that the results are comparable between schools and so that they may be validated and supplemented by external evaluation;
 - design and implement a scheme for regular school external evaluation (for instance, once every four years);
 - use the external evaluation to: (1) validate self-evaluation results, (2) assess the school's ability to be granted more autonomy and to assume greater management responsibilities, and (3) establish a basis for the accountability of schools and their managers;
 - include criteria related to: (1) the provision of education service in terms of quality and equity (students' performance and learning achievement); (2) the quality of teaching and assessment and the response to student diversity; (3) the school's organisation and management (efficiency of resource management); the school's self-regulation and ability for self-improvement; (4) the school's leadership (ability to set goals, plan for and obtain results, and co-ordinate, motivate, and elicit the best from stakeholders); and
- ensure effectiveness of the external evaluation by: (1) providing for the external evaluation to be performed by qualified and recognised evaluators; (2) designing and providing a training programme for evaluators; (3) determining the agency responsible for the external evaluation and ensuring that it has the autonomy and means to carry out its mission.
- Initiate, design and develop as soon as possible a comprehensive system of assessment of learning outcomes that is aligned with curriculum objectives, and that can be used at multiple levels of the system: individual students, classrooms, schools, regions and the system as a whole (Box 1.8). Initial steps towards this include developing standardised national assessments of student learning in mathematics, science and language for appropriate levels of education.
- Develop and maintain a comprehensive information system to support planning, quality improvement, and efficient management throughout the system. Make extensive efforts to engage the end-users of the data in the design of the information system.

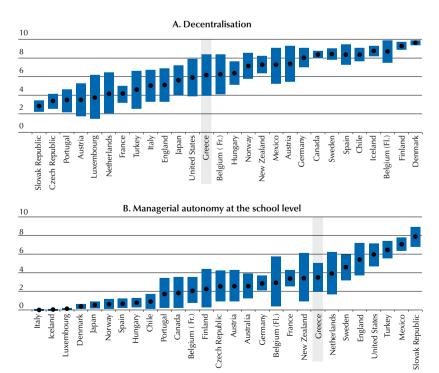


Figure 1.18

Autonomy and accountability in primary and secondary education (2007)

Note: The figure gives the average and the range that contains 90% of the 1 000 random weighted indices. Source: Gonand, F., et al., (2007), Public spending efficiency: institutional indicators in primary and secondary education; and Sutherland D. et al., (2007), Performance indicators for public spending efficiency in primary and secondary education; and Sutherland D. et al., (2007), Performance indicators for public spending efficiency in primary and secondary education; and Sutherland D. et al., (2007), Performance indicators for public spending efficiency in primary and secondary education.

Medium term

Extend the standardised national assessment by:

- Developing central test banks linked to specific learning outcomes that teachers can use, which are comparable through time and count for individual students' results (20% to 30%).
- Providing professional development to strengthen the capacity of teachers to use formative methods for assessing student learning outcomes. Summative assessments aligned with curriculum objectives can be developed and targeted to specific learning outcomes and to mark different types of assessment, such as project work and portfolios.

Use the comprehensive system of assessment of learning outcomes developed to comparatively assess the performance of students, classrooms, schools, regions and the system as a whole.

Develop a consistent, credible and practical system of teacher evaluation in the context of a fully developed evaluation and assessment framework (Box 1.9).

- Empower and equip school leadership to take responsibility for the process of teacher evaluation.
- Consider use of external intervention, at least to check the school's evaluation procedures.
- Design teacher evaluation for improvement linked to professional development (for example, through an individual training plan, aligned with the school's training plan, if possible in agreement between the teacher and the school management).
- Insist that teacher evaluations have consequences for career progression and possibly compensation in order to ensure that teachers take evaluations seriously.
- Use teacher evaluation to distinguish among teachers to ensure that the most diligent and effective teachers are being compensated fairly.

Box 1.9 Lessons from Portugal on school and teacher evaluation

School evaluation has been much easier and peaceful to implement than teacher evaluation. Self-evaluation of schools is an important starting point, but for evaluation to be of any consequence it must be validated by external evaluation. It is important that schools accept the criteria and recognise the competence and legitimacy of the evaluators.

The recognition of the evaluators is no less important for teacher evaluation. It would be very useful that an agreement could be reached on the competence of evaluators and on the criteria and consequences of evaluation. A lengthy negotiation may be preferable to a more forceful implementation of teacher evaluation, especially if school evaluation is under way. Anyway, the notion that the first and foremost goal of evaluation is improvement, through further training and professional development should be conveyed. Consequences for career progression must be seen as a by-product of evaluation for improvement.

Failure to do this and to gain the support of teachers in schools made the system very difficult to implement in Portugal. Anyway, the system should not be dependent on the individual voluntary participation of teachers in the process (for instance though self-evaluation). Otherwise, it becomes exposed to individual or organised forms of resistance, which can jeopardise the whole effort.

Source: Santiago P., et al. (2009).

GOVERNANCE AND MANAGEMENT

Making more efficient use of available resources

The persistence of a highly centralised governance and management structure of the education system in Greece is a major barrier to improved efficiency and performance. In essence, the structure provides few incentives at each level of the system – the teacher, the school director, municipal and regional officials, or the various offices of the Ministry – to assume responsibility for making more efficient use of available resources to improve performance (Figure 1.18 and Table 1.9). The mentality throughout the system is to ensure compliance with narrowly defined centralised rules or to perform a narrowly defined task, rather than to be held accountable for efficiency or to contribute to a broader goal, such as improving student learning or improving the overall performance of a school or region. Because there are no goals, benchmarks or modes of evaluation for efficiency and performance at any level of the system, there are no means to hold individuals accountable.



The Greek education system is one of the most centralised in Europe. Most other countries in Europe, and the highest performing countries in PISA, have decentralised responsibility and accountability for student learning to the school level, redefined the roles at each level of the system to support school improvement, and changed the role of central authorities from enforcing compliance with centralised rules to leading improvement, supporting schools and teachers, and holding the overall system accountable for performance. Such changes have not taken place in Greece.

To a large extent, the centralised and fragmented education structure results from the overall national governmental structure of Greece. Traditionally, it has been a structure of highly centralised control, necessitated in part by the challenge of gaining coherence and maintaining political control across widely dispersed small communities and islands. The Ministry of Education functions within the framework of policies and rules established by the Ministries of Finance and Interior.

In addition to these external controls, education policies that are the responsibility of the Ministry of Education, including the curriculum, timetable, and the assignment and distribution of teachers and other school personnel, are also highly centralised.

Responsibility for key elements of the system - curriculum, assignment of teachers, development and distribution of textbooks, etc. - is dispersed among separate units within the Ministry and each of these units has vertical, "silo" connections with units down through the system to regions, prefectures, offices and schools. Responsibility and funding for important functions, such as maintaining school buildings and transportation, is assigned to municipalities under the jurisdiction of the Ministry of Interior, not the Ministry of Education. This makes coherence difficult.

Percentage of decisions relating to public sector lower secondary education taken at each level of government, 2003								
	Central	State	Provincial / regional	Sub-regional	Local	School	Total	
Australia		76				24	100	
Austrai	27	22			23	29	100	
Belgium (Fr.) ¹		32	25			43	100	
Czech Republic	7		1		32	60	100	
Denmark	19				38	44	100	
England	11				4	85	100	
Finland	2				71	27	100	
France	24		10			31	100	
Germany	4	30	17		17	32	100	
Greece	80		4		3	13	100	
Hungary	4				29	68	100	
Iceland	25				50	25	100	
Italy	23		16		15	46	100	
Japan	13		21		44	23	100	
Korea	9		34		8	48	100	
Luxembourg	68					34	100	
Mexico	30	45	2			22	100	
Netherlands						100	100	
New Zealand	25					75	100	
Norway	32				32	37	100	
Portugal	50		8			41	100	
Slovak Republic	33		2		15	50	100	
Spain		57	15			28	100	
Sweden	18				38	47	100	
Turkey ²	49		27			24	100	

Table 1.9 Levels of school policy decision making (2003)

Note: Blanks indicate that the level of government does not have primary responsibility for decisions. 1. For Belgium (French Community), the level provincial/regional means state level for 61% of the schools, provincial level for 21% and local level for 18%.

2. Data refer to primary education. Source: OECD (2004), available at www.oecd.org/edu/eag2004.

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The current system of regional administration is divided into five levels (see Figure 1.19): school unit, education offices (district level), directorates of education (prefecture level), regional education directorates, and the central office (ministry) with many scattered structures (16 000 school units, 116 directorates of education, 363 offices of education, 800 school advisers, and 200 000 teachers).

There are too many layers between the central heart of the Ministry and the schools. The function of each layer has traditionally not been to make decisions but to ensure compliance of subordinate units with centrally defined directives. Each of these layers does not correspond to a specific level of decision-making. Their existence cannot be justified either in terms of specialisation or in terms of decentralisation as they have overlapping responsibilities.

The regional and local structures are highly dysfunctional. The value-added and the specific sphere of competence of each administrative layer is unclear, as they seem to hinder more than facilitate communication between the core structure in the Ministry which is in charge of devising and steering the reforms, and the schools, which must implement them. They do not



correspond to different levels of decision making or to actual decentralisation. Fragmentation of responsibilities hinders effective policy making and does not enhance commitment and ownership of policies among those who have ultimate responsibility for high-quality teaching and learning: teachers and school directors.

A key finding from PISA is that the best-performing countries have moved away from centralised controls to more decentralised systems within the framework of national goals, support structures and accountability. These countries focus on the school as the unit for improvement: creating organisational framework and flexibility for teachers, under the instructional leadership of a school director, to collaborate in improving student learning. The following is a synopsis of the PISA findings:

Many of the best-performing countries have [...] rebalanced their systems to provide more discretion to school heads and school faculties, a factor that, when combined with accountability systems, is closely related to school performance. In many cases, these countries concluded that top-down initiatives were insufficient to achieve deep and lasting changes in practice, because reforms were focused on things that were too distant from the instructional core of teaching and learning; because reforms assumed that teachers would know how to do things they actually didn't know how to do; because too many conflicting reforms asked teachers to do too many things simultaneously; or because teachers and schools did not buy into the reform strategy.

Formerly centralised systems have shifted emphasis towards improving the act of teaching; giving careful and detailed attention to implementation, along with opportunities for teachers to practice new ideas and learn from their colleagues; developing an integrated strategy and set of expectations for both teachers and students; and securing support from teachers for the reforms (OECD, 2010a).

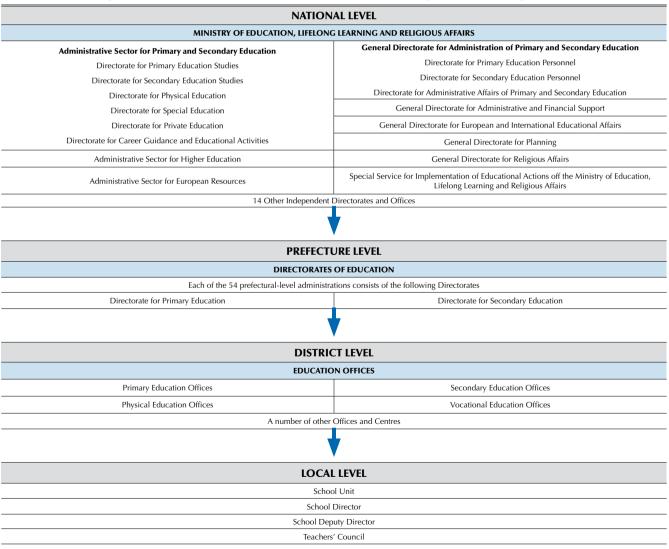


Figure 1.19

Organisation of educational administration of primary and secondary schools

Source: OECD, based on information from the Ministry of Education, Lifelong Learning and Religious Affairs.

Current reforms

In April 2011, the Ministry of Education announced a major reform of the administration of the education system focused on the goal "First the Student", but in this case, stressing "First the Unit of the School". The goal of the new structure is that "... all individual policies in education will have a single goal: to make the school unit, the heart of the educational system, work properly and efficiently". As explained in the consultation document, "... the operation of the 801 pilot full-day primary schools with a single revised curriculum that provides for the coexistence of various disciplines, teachers, teaching physical education, foreign languages, music, visual arts, theatre and computer education has demonstrated the necessity of joint planning, unity among all stakeholders at the New School and uniform guidance and support mechanisms." The reforms were also necessitated by the "*Kallikratis*" reforms in general government, which reduced the number of municipalities (which have responsibility for school buildings, transportation, etc.) and strengthened the role of regional administrative structures.

The reforms include:

- elimination of the Offices of Primary and Secondary Education;
- consolidation of the structures (administrative and guidance supporting) facing common issues of primary and secondary
 education, particularly in the nine years of compulsory education, establishing a single regional management training module;
- streamlining the organisational structure of regional directorates, making the most of educational and administrative staff and the best use of available resources (reduction of rental buildings that house the regional offices, sharing where possible, etc.);
- reorganising, streamlining, strengthening and co-ordinating the system of scientific pedagogical guidance and support of
 educational work and the creation of new, single structure for guidance and support for primary and secondary education; and
- providing for a transitional period (2011-15) to ensure a smooth adjustment of system administration.

The transition structure to be in place until 2015 and the new structure are shown in Figures 1.20, 1.21 and 1.22 on the following pages.

Observations on the reforms

Scope and pace of reform

The recently announced administrative reforms are clearly in the right direction – toward a significant devolution of the educational system and a redefinition of the role of the Ministry of Education and other entities (e.g. the new institutes). In some respects, the reforms do not go far enough:

- School directors continue to have only a limited role in teacher selection and the allocation of teachers' time.
- Most centralised controls of curriculum, textbooks, budget and other matters remain unchanged, although clearly the intent is to increase flexibility at each level. The emphasis, however, remains on "delegation of central authority," rather than on empowerment of schools and school leaders within the framework of central strategy, frameworks, outcome-based accountability, and monitoring.
- The implementation timeline is too slow. Most of the existing structure will remain in place until 2015. Significant change is needed now in order to give the system the capacity to achieve the far-reaching change needed to respond to the economic crisis.

Professional development for education administrators

Change in the system depends on a fundamental change in the knowledge, skills, and competencies at every level of the system. This change could be accelerated by a comprehensive professional development programme for school directors and other educational administrators. At the time this report was prepared, there was no evidence of such a comprehensive initiative (see earlier sector on school leadership).

Perhaps the most serious problem is the lack of capacity to lead and sustain reform across changes in political leadership of the Ministry of Education. The current reforms are being led by a small, highly motivated and competent core of senior policy advisors to the Minister. There appears to be a wide gap between this leadership team and the large core of public servants who have been, and will continue to be, the ongoing capacity of the Ministry.

Capacity to lead and sustain reform

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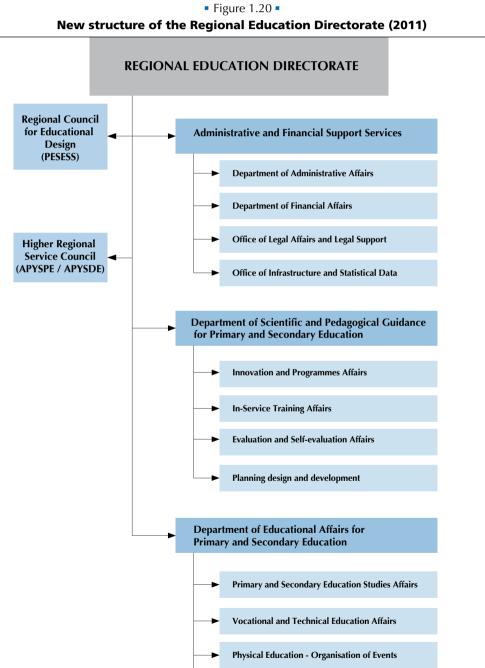
A lesson from countries that have successfully maintained the momentum of reform and sustained initiatives over changes in Ministers and political leadership is that they have established entities charged explicitly with leading and sustaining reforms. Much like the Higher Education Authority recommended in Part II of this report, the implementation unit for primary and secondary education reforms advises the Minister on needed policy initiatives but its principal function is policy execution, not policy development (Barber, M., 2010).

The history of education reform in Greece is one of years of passing laws and of beginning reforms but often not carrying through on implementation. The failure of Greece to make any significant progress in improving its performance compared to other EU and OECD countries is directly related to its difficulties in implementing well-intentioned reforms.



The establishment of such a unit could be highly beneficial for Greece. Under the overall policy direction of the Minister, such an entity could:

- be organised so as to have a status independent of the Minister's immediate political and policy offices, perhaps with a legal status that could insulate it from changes in political leadership;
- have a relatively small staff with an employment status not directly subject to appointment by the Minister, and selected because of credibility with a wide range of stakeholders and extensive experience with implementing large-scale reforms;
- have core analytic capacity to monitor and evaluate implementation; and
- be accountable to the Parliament through periodic reporting on the status of implementation.

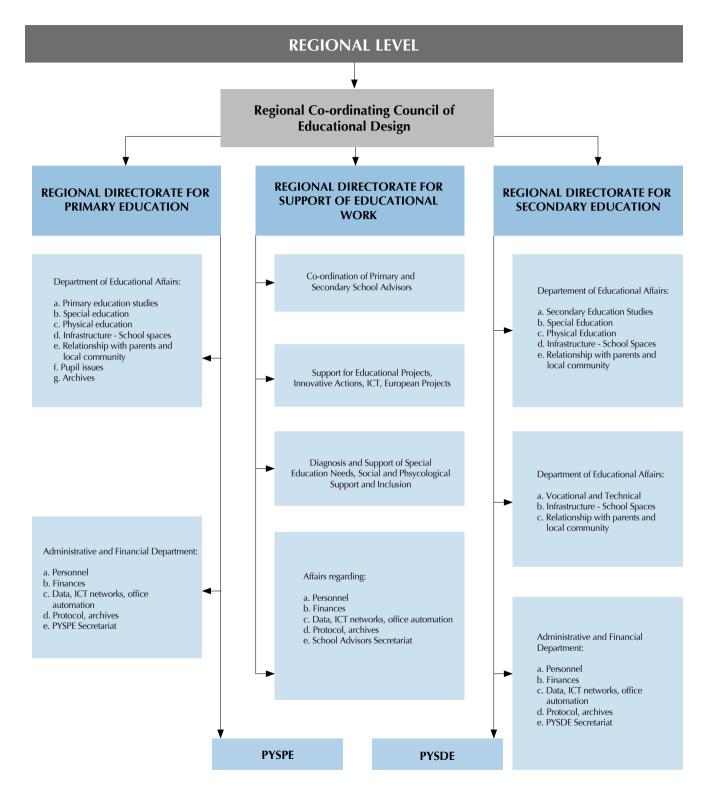


Source: Ministry of Education, Lifelong Learning and Religious Affairs.

Special Education Affairs

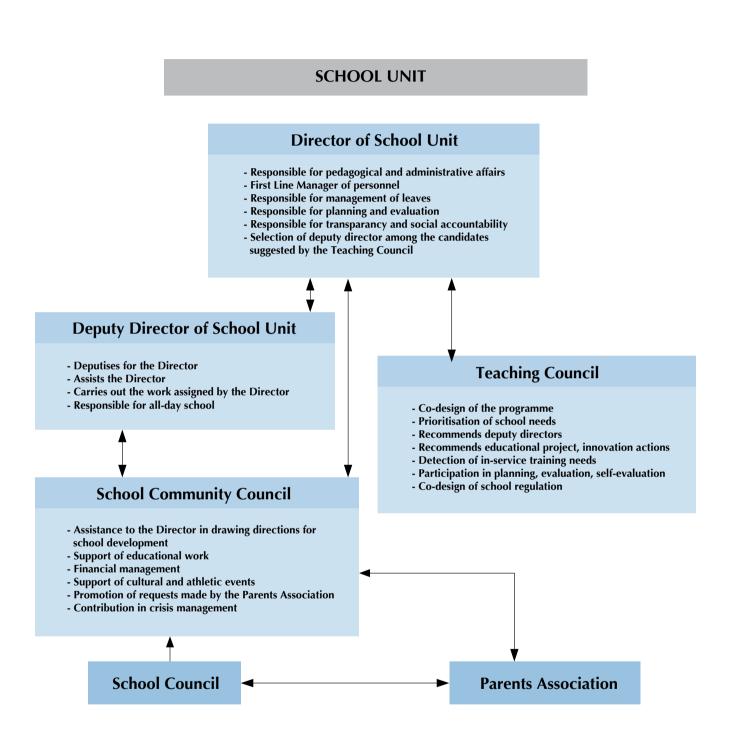
Figure 1.21

Organogramme of Regional Directorates (transitional structure 2011-15)



Source: Ministry of Education, Lifelong Learning and Religious Affairs.

Figure 1.22 Organogramme of School Unit (2011)



Source: Ministry of Education, Lifelong Learning and Religious Affairs.



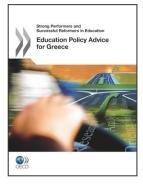
Summary of recommendations

Short term

- Transform the structure and functions of the Ministry.
- Establish an implementation unit to guide and oversee step-by-step implementation.
- Downsize the central structures currently devoted to input, pre-audit oriented controls.
- Accelerate the timeline for implementing the recently announced administrative reforms.
- Differentiate the pace and modes of redesign across the system (trying to do everything at once will result in nothing being done or in one-size-fits-all implementation).
- Establish negotiated performance agreements on a region-by-region basis.
- Differentiate solutions according to significant differences among regions in problems and capacity to implement reforms:
 - urban versus rural; and
 - multigrade and school clusters versus comprehensive primary and secondary school units.

Medium term

- Within a framework of outcomes-based accountability and post-audit monitoring, decentralise responsibility for managing an integrated performance-based programme budget for human resources, current budget and investment throughout the system – from school unit to region, to the Ministry of Education. Integration of all funding related to education (including funding now through the Ministry of Interior).
 - Assign responsibility for managing budgets to line managers.
 - Hold managers accountable for significant improvement in use of human resources to achieve desired outcomes.
 - Pursue significantly more extensive redesign of school leadership than outlined in recent proposals, drawing on best practices in OECD countries (OECD, 2008a).
- Shift from current resource-allocation system to block grants allocated on a "money follows student" principle to regions, including allocation of budgeted number of positions, flexibility for regions to allocate resources within a framework of outcome, and performance-based accountability.



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