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Enhancing Incentives
to Improve Performance
in the Education System
in France

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FRANCE**

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ABSTRACT

Enhancing incentives to improve performance in the education system in France

The French education system has a mixed record. A generally very successful pre-school and primary school level contrasts with underfunded public universities with high dropout rates which exist alongside very successful higher education institutions for elites. Initial education, especially secondary education and the universities, along with labour market policies themselves, do not always succeed in improving labour market entry for a significant proportion of young people. Parts of the management of education have been decentralised, yet educational institutions themselves generally have a very restricted degree of autonomy. The system of performance measurement and incentives, at all levels of education, needs to be reviewed.

This Working Paper relates to the 2007 OECD *Economic Survey of France* (www.oecd.org/eco/survey/france), and is also available in French under the title “Renforcer les incitations à une meilleure performance du système éducatif en France”.

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ENHANCING INCENTIVES TO IMPROVE PERFORMANCE IN THE EDUCATION SYSTEM IN FRANCE

By
Paul O'Brien¹

Education is frequently the subject of lively discussion in France. It is associated with many of the major issues in both economic and social affairs. It has an important role in the cycle of social exclusion (see Jamet, 2007a). The link between educational attainment and labour market outcomes is as direct in France as in most other countries, though it is less clear how education can or should respond, as it is hard to separate the impact of labour-market institutions from that of education. As an important contributor to the development of human capital, it has a major, if not entirely understood, part to play in the process of economic growth. While opinions are divided on which parts of the French education system are most in need of reform, two important problems concern, on the one hand, higher, or “tertiary”, education which suffers from excessive complexity and inequalities as well as inefficiencies in financing arrangements and, on the other hand, the fact that many secondary school leavers are not well placed to participate on the job market.

Having historically been renowned for its high degree of centralisation, with very little autonomy given to school principals, the French education system has evolved over the past two decades. From the point of view of the Ministry of Education, the system is no longer highly centralised, and many functions in primary and secondary education have now indeed been handed to lower levels of government. But a marked absence of autonomy at the school level, and in public universities, still characterises the system. The teacher in the classroom, however, has a considerable degree of freedom as regards teaching methods and material, both from the education authorities and the school principal, while nevertheless respecting national standards in terms of the curriculum to be taught and the competences that should be acquired by students.

This paper discusses these issues, first outlining the organisation and finance of compulsory and higher education. It then focuses particularly on the questions of grade repetition and educational priority zones in secondary education, and on the problem of monitoring and improving performance. For higher education the emphasis is particularly on inequities and inefficiencies in the allocation of finance and the structure of institutions and courses offered. Box 2 summarises the main policy recommendations. These are oriented towards suggestions for changing the governance of education institutions to give better incentives for improving performance, rather than recommending pedagogical changes (with certain broad exceptions), which are mostly beyond the scope of this paper. In higher education, it is suggested that both

1. This paper is based on Chapter 3 of the *2007 OECD Economic Survey of France*, which was released under the responsibility of the Economic and Development Review Committee. The author would like to thank Eric Charbonnier, Beatriz Pont, Stéphanie Jamet and Peter Jarrett for their help and comments on the work; Slim Dali, Céline Letremy and Raoul Doquin St. Preux for research assistance; Mee-Lan Frank and Heloise Wickramanayake for technical assistance.

organisational changes and a new approach to selection of students and finance of higher educational institutions are required.

Education policy objectives and main issues

The aims of education policy

The law governing education (the *Code de l'éducation*) defines its aims as including both broad social goals and more student-centred objectives. The former include *mixité* (that is, mixing children from different socio-economic backgrounds), equality between the sexes and the promotion of respect for human rights. Recent revisions to the law define the student-centred objectives as both ensuring that all students finish compulsory education with a recognised qualification and that they acquire a *socle commun de compétences et de connaissances*, a core set of knowledge and competences to equip them for the labour market and citizenship. In the past, more emphasis was placed on the acquisition of academic qualifications. A set of core competences introduced for pupils at the end of elementary school (generally aged 10-11) in 1998. In 2006 a common set of core competences and knowledge was established, providing for objectives to be reached by classes typically corresponding to ages 7-8, 10-11, and 14-15 (end of lower secondary), which is to operate as from the 2007/8 school year.

The role of higher² education is, according to the *Code*, to contribute both to broad economic aims such as increasing research and the level of human capital in France, but also to reducing social inequality (which is not an aim explicitly attributed to secondary or primary education). Higher education is also seen as having a specific role in regional and national economic development, taking into account the current and expected needs of the labour market.

Reducing inequality may not be an objective explicit in the law for all levels of education, but it has nevertheless been a policy aim for successive governments (the “republican values” of liberty, equality and fraternity are an important consideration in all policymaking in France). The system overall does not succeed in eliminating the influence of social background on educational and labour market outcomes, although France probably does as well as most countries in this regard. Nevertheless, a number of other countries appear to manage better than France, without any obvious cost in poorer average performance. Discussion about the best way to improve the system’s performance in this respect is an important element of the current policy debate in France.

Issues

Certain specific, though inter-related, questions arise in discussion of education in France:

- Secondary school quality and governance – if some aspects of school performance need improving, what mechanisms exist or could be introduced to ensure that the system responds to these needs?
- Higher education finance and structure – is higher education an excessively complicated system with poor and inequitable targeting of funding, or is it highly flexible, producing a large number of good graduates at low overall cost?
- Inequality, transmission of disadvantage – how well does the education system compensate for inherent inequalities arising from children’s social and educational backgrounds?

2. In English usage, higher education and tertiary education are synonymous; French uses *éducation supérieure* but not *tertiaire*.

Before discussing these issues, which emerge under various headings, the next section describes the main features of the education system (with a particular focus on lower and upper secondary schools and higher education), which form the background for the subsequent analysis.

Education organisation and finance

Pre-school education is highly developed in France. Although it is not compulsory, participation was already 100% for children aged 4 and 5 in 1980 (90% for 3 year-olds) and reached 100% for 3 year-olds by 2001. Apart from the increasingly well-documented beneficial effect that this universal coverage has on educational outcomes later in life, this is also one of the factors behind the rising labour market participation of women in France.

Compulsory education runs from age 6 through to age 16, including five years of elementary school and four or five years of lower secondary school (Figure 1). Lower secondary education finishes at age 15 (except for the significant proportion of pupils who repeat one or more years) when children take exams leading to the *Brevet*, which was once a significant milestone but has become of little relevance since the 1970s (and is strictly neither necessary nor sufficient for continuing into upper secondary school). By the time they reach the end of lower secondary school about one in three pupils has repeated one or more years. Although this proportion is much lower than it was 20 years ago, it is still the highest among OECD countries and the subject of considerable debate.

Elementary schools, providing the first five years of compulsory education, are organised in districts covering a large number of schools. Individual schools are not managerially distinct but are under the responsibility of inspectors of primary education who report to the inspector of the *académie* (education district), the director of departmental education services. The inspectors manage staffing, participate in the operation of school zoning and implement national education policy and its evaluation. *Inspecteurs* may have between 30 and 70 schools, employing an average of 300 teachers, in their charge. They have no direct control over equipment, school buildings and many support services, which are financed by municipalities with which it is necessary to develop coordination.

Secondary education

Lower secondary education is based on the *collège unique*, *i.e.* a comprehensive model in which no selection either on ability or orientation takes place before age 15, and in which the student body, both in the schools and in classes within the schools, is largely heterogeneous. Orientation starts at upper secondary schools, the *lycées*, which offer highly differentiated courses. The first of three years is used to decide which kind of course pupils should follow for the final two years. Probably the most significant problem is how to meet the needs of the labour market for those who will not go on to tertiary education: about one person in three, in recent cohorts. This latter group is concentrated in the Education Priority Zones (*Zones d'éducation prioritaire*, ZEPs, discussed in more detail below), and there is also a strong correlation between the level of diploma achieved and the social origin and labour market situation of the parents (Table 1).

Most students follow these three years of upper secondary school leading to the main secondary school diploma, the *Baccalauréat* (generally known as the *bac*). Over the past three decades the proportion of children completing upper secondary education has steadily increased. For some time an important target has been for 80% of children to obtain the baccalauréat or equivalent. In the 1970s, only about 30% of generations finishing secondary school (*i.e.* those born in the 1950s) did so with the *bac*. At that time, most of the rest obtained only a certificate of lower secondary education (the *brevet*) or a basic vocational qualification, and the *bac* was an essentially academic qualification, with the expectation that holders would go on to further study.

Figure 1. Levels of school education in France

Secondary education	Upper secondary (<i>Lycée</i>)	<i>Terminale professionnelle</i>		aged 18 to 19	Optional		
		<i>Terminale générale</i>	<i>Terminale technologique</i>	<i>Première professionnelle</i>		aged 17 to 18	
		<i>Première générale</i>	<i>Première technologique</i>	<i>CAP</i>	<i>BEP</i>	aged 16 to 17	Compulsory
		<i>Seconde générale et technologique</i>			<i>Seconde professionnelle</i>	aged 15 to 16	
	Lower secondary (<i>Collège</i>)	<i>3ème</i>			aged 14 to 15		
		<i>4ème</i>			aged 13 to 14		
		<i>5ème</i>			aged 12 to 13		
		<i>6ème</i>			aged 11 to 12		
	Primary education	Elementary school	<i>Cours Moyen 2</i>			aged 10 to 11	
			<i>Cours Moyen 1</i>			aged 9 to 10	
<i>Cours Élémentaire 2</i>			aged 8 to 9				
<i>Cours Élémentaire 1</i>			aged 7 to 8				
<i>Cours Préparatoire</i>			aged 6 to 7				
Pre-school		<i>Grande Section</i>			aged 5 to 6	Optional	
		<i>Moyenne Section</i>			aged 4 to 5		
		<i>Petite Section</i>			aged 3 to 4		

Source: Ministry of Education.

As the number of children reaching this level has increased, the *bac* has become highly differentiated. The academically oriented *baccalauréat général* allows a certain degree of specialisation but still covers a wide range of subjects, much like the baccalauréat of earlier generations; students can, however, opt for a *baccalauréat technologique*, which is more narrowly science or technology based, and *baccalauréats professionnels* are designed as vocational qualifications, though retaining a minimum of academic content. The *lycées* themselves are also differentiated. Some (*lycées d'enseignement général et technologique*) offer only the “general” course or a choice between the general and the technology baccalauréat, while others (*lycées professionnels*) offer only the vocational route, including those that lead to vocational diplomas other than the baccalauréat, notably the *certificat d'aptitude professionnelle* (CAP) and the *brevet d'études professionnelles* (BEP). In the 1980s, the vocational schools were somewhat more numerous than the general and technology schools (excluding those in the private sector), but the latter have grown in number – now accounting for about 60% of all public *lycées* and a rather higher share of students. More recently, the number of people taking up apprenticeships has also begun to increase. The *bac* is particularly valued by students (and parents) because, once obtained, whether under the vocational, technical or general streams, and whatever the level of achievement within those studies (apart from the minimum pass mark), it entitles its holder to enter higher education at a public university with no further selection.

About 63% of children now obtain the *bac*, (about half of whom obtain the *bac général* and nearly one third the *bac technologique*), while a further 20% leave upper secondary school with vocational qualifications which do not lead directly to university education though they can lead to further vocational courses. National education statistics record that some 7% of children leave school with no formal qualification, but it is difficult to compare this figure directly with outcomes in other countries.³ A slightly different measure is the number of people who do not finish upper secondary education (although they may have the *brevet*) which labour force survey statistics record as 14% of people aged 20-24 (16% of males and 13% of females) in France, compared with 7% in the United Kingdom, 10% in Sweden and Denmark, 12% in the United States, 17% in Australia (data for 2003).⁴

The private sector is relatively extensive. In 2005 21% of all lower and upper secondary school students attended private schools,⁵ and a similar share of secondary school teachers works in the private sector. This share has been fairly stable over time: it was the same in 2005 as in 1980, though it had previously been somewhat higher, 26% in 1960. Nearly all such schools are faith-based, overwhelmingly run by Catholic foundations. (Public education in France is strictly independent of religion, and this is felt to be one of the most important features of the system.) Private schools generally operate under contract to the education ministry and must teach the same programme as public schools; the state finances the cost of teaching staff and a contribution to running costs, while moderate school fees finance the rest. The amount provided per student by the state is generally less than the average per pupil expenditure in public schools. Teachers in private schools are subject to the same requirements on qualifications as those in the public sector, though they are not usually public-sector employees, and they do not seem to be paid any more on average. Recruitment is managed by the schools themselves.

-
3. In fact it is quite difficult to fit together the official data on levels of qualification achieved by any given cohort of young people, although the otherwise user-friendly website of the Ministry of Education provides a number of statistical tables.
 4. These figures cannot easily be compared with those for children leaving school without any qualification because the labour force survey data refer to upper secondary education – and some diplomas can be obtained before completing upper secondary; also, they may not use the same definition of completed studies. Labour force data also include those immigrants who completed their education before arriving in France.
 5. The share of pupils in private schools is rather higher than this overall average in upper secondary education, and somewhat lower in elementary education.

Secondary school principals in public-sector schools have some responsibility for teaching methods and organisation in their schools, but limited responsibility for budgetary expenditure. With some exceptions they have no say in decisions to recruit teachers for their schools, and monitoring of teaching practices of individual teachers is left to the centralised education inspectorate, which is organised on a regional level within the Ministry of Education. Individual teachers see an inspector on average only once every five years, even though their career advancement can depend partly on the assessment of their teaching performance by the inspector (through observation of teaching, not results obtained); it also depends on their “administrative” performance, which is assessed by the head of establishment. Children are allocated to schools by geographical zones (the *carte scolaire*) and generally have little choice of school, except in rare cases.⁶ A small number of public *lycées* are nevertheless well known as schools for the élite which have succeeded in selecting their pupils, despite the theoretical rigidity of the *carte scolaire*.⁷ Because it is popularly thought that many well-connected parents are able to by-pass the *carte scolaire*, and because competition may improve results, there are occasional suggestions that it should be relaxed; giving all parents some choice over their children’s school, as in some other countries.

Higher education

Higher education in France is home to a number of paradoxes. Annual per capita spending on students is among the lowest in OECD countries. Less is spent per capita per year on the average student in higher education than on *lycée* students. There is a high drop-out rate for certain groups of students in the first and second year at public universities and poor job prospects for those following certain courses of study, but young people who are (statistically) unlikely to succeed still sign up in large numbers for these courses. Even though it is the avowed duty of higher education to help reduce social inequality, the system contains some of the most elitist institutions (albeit in the meritocratic sense) to be found in the OECD.

The majority of students enter public university programmes, for which the baccalauréat is a necessary and sufficient qualification; there is no further selection on the basis of results in the *bac* or likely aptitude for the subject chosen. One result of this is that many students repeat their first or second years and significant numbers move to other forms of further training or drop out of university altogether. In 2004, 20% of those who entered non-selective university courses leave the system with no higher education diploma (this figure is much higher for holders of the *bac professionnel*)⁸ and 15% shift to shorter courses. However, these non-selective university courses are not the only ones available. A large number of selective higher education institutions (HEIs) exist, choosing their students either on the basis of their *bac* result and school record or via specific entrance competitions by examination.

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6. In some cases certain optional subjects which most children would have difficulty with – often unusual foreign languages – are offered by schools as a sort of signalling device; parents claim that they want their child to learn such a subject, which is only available in a school to which they would not otherwise be able to go, with the result that such schools have a higher-than-average range of ability and of parents’ social origin. In upper secondary school, there is also pressure to take the scientifically oriented “bac S” because of the higher level of maths it requires, even if intensive maths is not a requirement for a pupil’s future studies, in the belief that the ability to study higher level of maths is itself a signal of more general ability.
 7. Students in these schools may have been recommended to them by their teachers in lower secondary schools. Residential property prices also tend to be high in the vicinity of these schools, and according to anecdotes, some parents buy or rent very small apartments merely to establish residence in the relevant catchment area. Demand for private-school places also appears to have increased, though capacity has not responded, as parents look for ways to avoid certain public schools that are perceived as underperforming.
 8. Unemployment rates for young people with a *bac professionnel* who drop out of university without any further diploma seem to be higher than for those who go straight onto the labour market after obtaining the *bac*.

The structure of higher education has become rather complicated, with considerable differences in organisation and funding among the different kinds of institution (Table 2). Public universities themselves contain sections with some autonomy, authorised to select their students— notably the *Instituts universitaires de technologie* (IUTs). These are now more numerous than universities themselves, have a significantly higher success rate at the end of their two year courses (especially for holders of the *bac professionnel*) and their graduates have a much better employment record. The IUTs and some other HEIs select on the basis of results in the baccalauréat and a student’s school record. Many others require two years of study after the *bac*, in *classes préparatoires* which are mostly located in certain *lycées*. While entry to university is guaranteed by successfully passing the *bac*, entry to a *classe préparatoire* is not; it depends on the type and level of *bac* results and recommendations from teachers. Teachers who teach at upper secondary level may also teach *classes préparatoires*. Most students find this period the most intensive that they ever undertake, but in itself it leads to no explicit diploma at all, rather conferring eligibility to take entrance examinations to some of the selective institutions collectively known as *grandes écoles*.⁹ Expenditure per student in *classes préparatoires* is, on average, twice what is spent on students in public universities (about 14 000 euros as compared with 6 900) (Table 3), reflecting the much more favourable staff-to-student ratio.

Table 2. **Diplomas in higher education**¹

Years after upper secondary diploma	University		“Classes Préparatoires” (1st 2 years) and “Grandes Écoles”	“Section de technicien supérieur”	“Institut universitaire de technologie”
	Old system (until 2006)	New system			
1					
2	DEUG (diploma of general university studies)			BTS (Diploma of higher technical studies) ²	D.U.T. (Diplôme universitaire de technologie) ²
3	Licence (Bachelors degree)	Licence (Bachelors degree)		Licence professionnelle (vocational degree)	Licence professionnelle (vocational degree)
4	Maîtrise (1 year Masters)				
5	DEA or DESS (2 year Masters)	Masters	Masters		
6	Ph.D	Ph.D			
7					
8					

1. Excluding specialised courses such as medicine and law.

2. Holders of BTS and DUT can cross to certain university or *grandes écoles* courses.

Source: OECD.

9. Or “great schools”; more detail is provided below. In this section, the term “grandes écoles” is used in a loose sense to include many *écoles d’ingénieurs* and *écoles de commerce*, for which a *classe préparatoire* is necessary, but which may not be technically *grandes écoles*. Another group of institutions, for which the description and analysis in this section are not so relevant, includes highly specialised schools, of medicine and law, for example.

Table 3. Students by type of institution, 2005/6

Number of students	Share of total		Expenditure per student
1 421 719	62.5	University	7 210
112 597	4.9	of which, IUT	10 890
230 403	10.1	<i>Sections de techniciens supérieurs</i>	13 360
81 565	3.6	Teacher training	
74 790	3.3	<i>Classes préparatoires</i>	13 560
25 944	1.1	<i>Grands établissements</i>	n.a.
108 057	4.7	Engineering schools	n.a.
87 666	3.9	Business and management schools	n.a.
3 191	0.1	<i>Ecoles normales supérieures</i>	n.a.
64 598	2.8	Artistic and cultural	n.a.
124 201	5.5	Paramedical and social	n.a.
52 910	2.3	Other	n.a.
2 275 044	100.0	Total	8 940

Note: In common usage, the term “grandes écoles” includes les “grands établissements” but also most engineering, business and management schools, the *écoles normales* and some other institutions.

Source: Ministry of Education (2006a) and direct communication. Figures for student numbers and costs vary slightly according to different definitions.

Finance and organisation

Education is mostly financed out of the central government budget. The salaries of teachers (who are mostly civil servants), the main expense, are paid directly by the state. As in most countries, however, some aspects of expenditure are decentralised, to different levels of government according to the level of the school and to the nature of the expenditure. Municipalities are responsible for pre-school care and for buildings and equipment of elementary schools. The equipment of secondary schools is the responsibility of departments and regions; local governments nevertheless receive transfers from central government intended to cover the bulk of their education expenditures. Higher education is more varied, with certain institutions depending directly on the Ministry of Education, some on other ministries. Although local government finances about 40% of total expenditure on primary education, much of this is in the pre-school sector (*maternelle*) (Table 4). The decentralisation of expenditure on primary and secondary public education does not cover teaching staff, relating rather to other operational expenses, equipment and building infrastructure.

Table 4. Expenditure on education by level of education and level of government

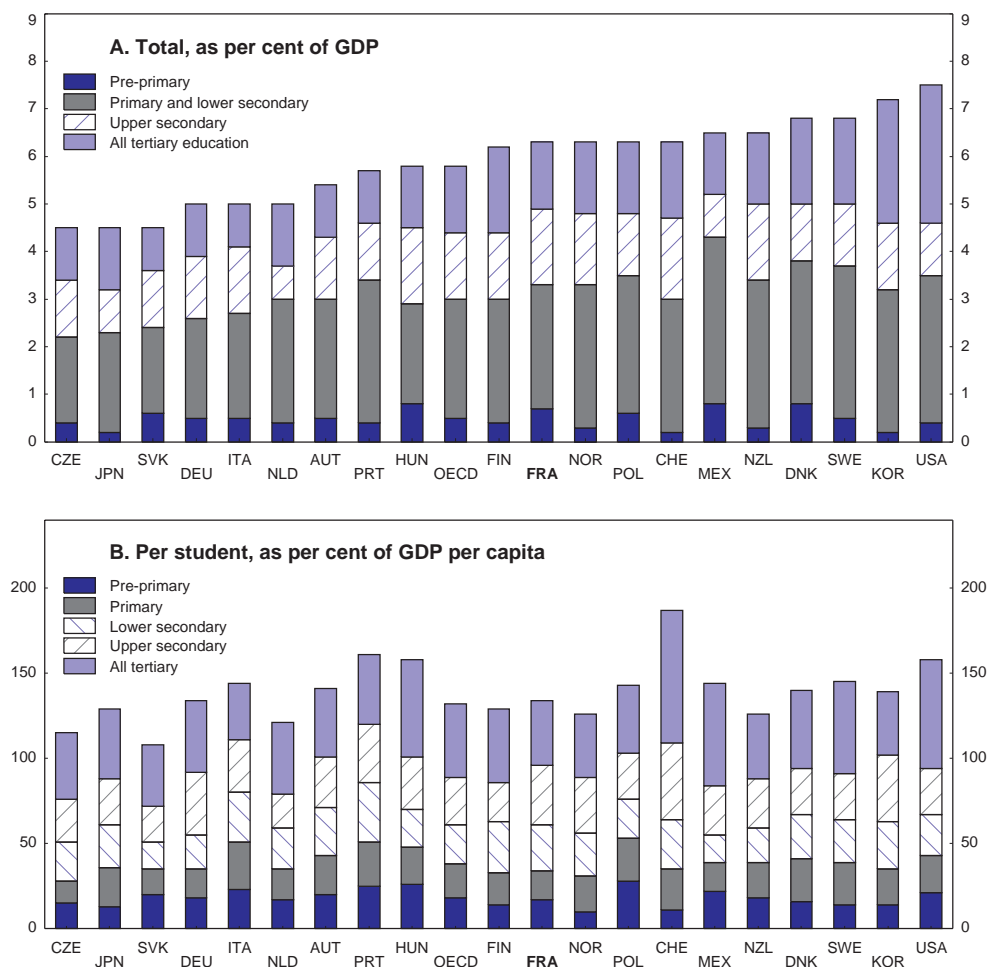
	Total	Primary (Maternelle and Elémentaire)	Secondary (Collège and Lycée)	Tertiary (Higher) (Education supérieure)	Adult education
Total expenditure (billion euros)	116.3	30.6	52.7	19.7	11.8
<i>Of which: (per cent)</i>					
Ministry of Education	55.9	52.9	65.4	64.8	12.2
Other state	7.5	0.1	5.4	9.8	29.2
Sub-national government	20.2	39.8	17	5.9	8.9
Other public	1.9	1.8	2.3	1.1	1.8
Companies	6.5	0	2.1	6.4	38.7
Households	8	5.4	7.8	12	9.2
Total	100	100	100	100	100
<i>Memo:</i>					
Expenditure per student (euros)	6 810	4 600	8 530	8 630	-
Share of total public expenditure (per cent)	13.3	3.5	6.0	2.3	1.4
Share of GDP (per cent)	7.0	1.8	3.2	1.2	0.7
<i>Memorandum items (billion euros):</i>					
Total public expenditure	873.3	-	-	-	-
GDP	1 656.7	-	-	-	-

Source: Ministry of Education (2005a).

In international comparisons, a number of things distinguish the use of resources in French education. One is the high level of enrolment of children from 3 to 5 years of age in pre-school, and its relatively high level among two year-olds. Another is the relatively high expenditure per student in secondary education (Figures 2). A third is the counterpart of this, the relatively low amount spent per student in higher education, where part of the reason for the low expenditure relative to the average is the low share of private finance, which varies much more across countries than does the share of public resources (Figure 3). In higher education, however, the variation in per capita spending in France is very high between different types of course and institution.

Figure 2. Annual education expenditure

2003

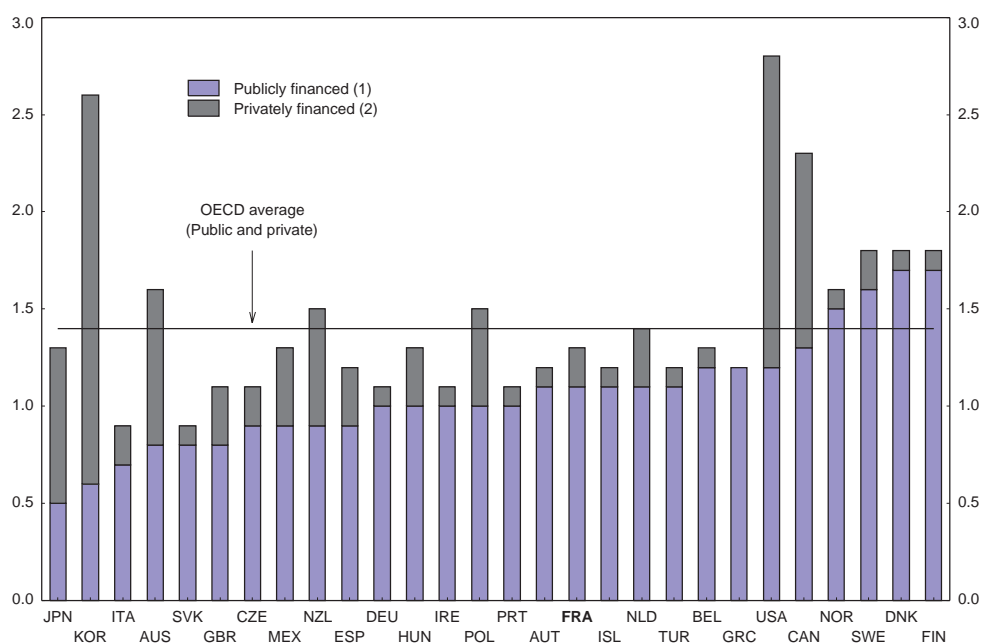


1. For Hungary, Italy, Poland, Portugal, and Switzerland, public institutions only.

Source: Education at a Glance, OECD Indicators 2006.

Figure 3. Expenditure on tertiary education

Per cent of GDP, 2003

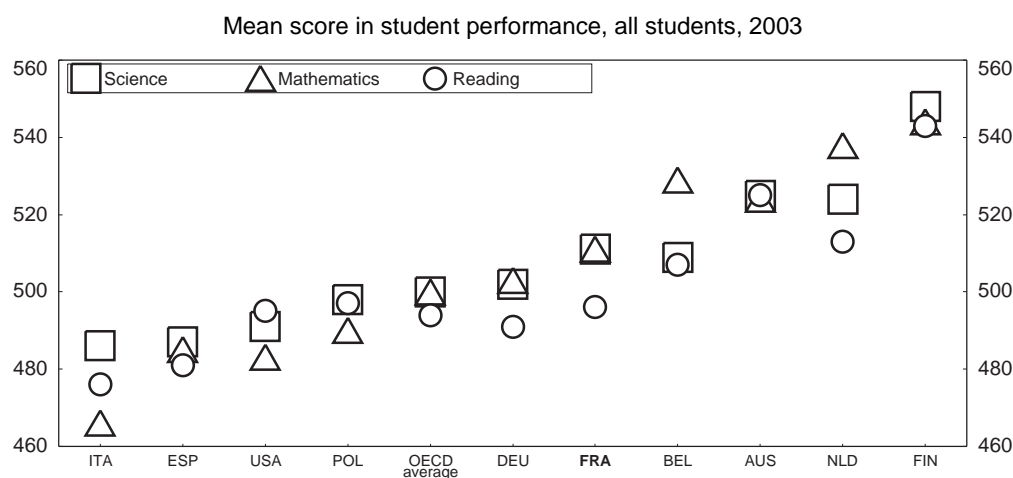


1. Including public subsidies to households tied to educational expenditure, as well as direct expenditure on educational institutions from international sources.
2. Net of public subsidies tied to private educational expenditure.

Source: Education at a Glance, OECD Indicators 2006.

As far as the management of education is concerned, what stands out particularly is the lack of autonomy given to establishments in hiring, evaluating and dismissing teaching staff. This extends through part of the public education system, including certain public-sector research institutes. This is perhaps not technically the same as a “centralised” approach to these functions, since allocation of teaching staff is not determined centrally but usually through a locally-based process;¹⁰ it allocates teachers according to their expressed wishes, taking into account the number of career points that they have accumulated, so that more experienced teachers have more choice. These systems are managed by joint commissions comprised of representatives of teaching unions and of the administration. However, the fact that the heads of schools have little way of responding to local needs is one of the factors that makes the French education system appear relatively centralised in a recent OECD assessment of institutional indicators of education systems (Sutherland *et al.*, 2007). Notwithstanding this general lack of autonomy, an increasing amount of experimentation is taking place. Principals may be able to recruit teaching assistants (not qualified to take classes on their own) themselves; the programme *ambition réussite* involves extra teaching resources being assigned to certain schools and the principal has the main role in deciding on what kind of teacher is to be sought and whom to recruit, though it seems that legal responsibility will remain with the *académie*. Generally, the authorities seem open to the idea of experimenting with increased autonomy, but are moving rather cautiously.

10. For the 10% of teachers who have the qualification known as *agrégation*, the system is nationwide. The educational regions are known as *académies*, of which there are 30. They largely correspond to the political *régions*, though a few of these are divided into more than one *académie*.

Figure 4. **Comparative educational performance at age 15**

Source: OECD (2004), *Learning for Tomorrow's World*, First results from PISA 2003 (Annex B, tables 2.5c, 6.2, 6.6).

Educational achievement and its variance

According to the OECD's comparative data on the literacy, mathematics and science skills of 15 year-old children, educational achievement in France, for this age group, was around the average for OECD countries in 2003 (Figure 4); France was similarly placed in 2000. Variation within the population is somewhat greater than in most OECD countries, especially in performance on science.

It is rather harder to make any cross-country comparison of the performance of higher education. One assessment that receives a certain amount of comment in France concerns the annual world ranking of HEIs by the Institute of Higher Education of the Shanghai Jiao Tong University. The highest ranked French institution (University of Paris 6) is 45th. It is the 11th ranked non-US institution (after four from the United Kingdom, two from Japan and Canada, and one each from Switzerland and the Netherlands). This ranking is based on criteria related to research rather than teaching output, and the methodology is likely to favour English-language institutions, and also larger institutions over small ones. Other rankings which are less comprehensive but perhaps less subject to these last two biases nevertheless rank French institutions rather low.¹¹

Pre-school and primary education

Although not appearing in the education code, an important aim of elementary and pre-school education in France is to try to offset the impact of social background on educational achievement. Research in France and elsewhere has generally shown that the impact of early education on later achievement is significant (see, for example, OECD, 2004; Heckman, 2000; Jarousse *et al.*, 1992; Jeanthieau and Murat, 1998), and the expansion of pre-school provision in France has reflected the desire

11. The Shanghai Jiao Tong ranking uses quantitative indicators such as the number of citations and number of Nobel prize winners but does not properly adjust for the size of the institution. Other surveys include one from the UK Times Higher Education Supplement, a kind of "peer review" which ranks institutions according to subjective opinions of university researchers. The highest placed French institution, the École Normale Supérieure, is in 18th place. It and the Ecole Polytechnique (37th place) owe their ranking largely to their high staff/student ratios, a teaching-related indicator but unfortunately an input rather than an output measure.

to improve overall outcomes and to reduce inequality. The general view is that elementary education in France is relatively successful, and that the universal free provision of pre-school from age 3 onwards plays an important part in this. Furthermore, it is thought that elementary schools succeed in isolating the effect of parental background, so that the remaining disadvantage does not get worse in elementary school, although social background re-asserts itself during lower secondary school.

A recent study (Caille and Rosenwald, 2005) may modify this view. The study investigates a panel of 8 300 children who started elementary school in 1997 and an earlier sample from 1978.¹² In explaining the variance of results in competence tests in the French language and in mathematics at the beginning of lower secondary school, it is found that while the single biggest explanatory factor is the level of achievement at entry in elementary school (where parental background is important), parental background is still a significant additional factor,¹³ implying that even progress during elementary school is subject to the influence of social origin. However, the results also show that children of immigrant parents perform somewhat better than others, once account is taken of their level of achievement at the beginning of elementary school.

Another interesting result from that study concerns the impact of entry into pre-school at two years of age. The average performance of those who enter *maternelle* at age 2 is clearly better than that of those who enter a year later, both at age 6 and at age 11, confirming that investment in this age group produces results in performance nearly 10 years later. But the results also suggest that the benefits of early childhood education may partially evaporate between these two ages, other things being equal. Though the impact is small in itself,¹⁴ and not highly significant, further investigation of these results might be useful to confirm them and understand their origin; they may be related to teaching methods, for example.

Teacher training

OECD (2004) suggests that the programme of the *maternelles* has been too strongly oriented towards the acquisition of specific competences and knowledge required for entry into elementary school; the report recommends that "... pedagogical and evaluation approaches could be strengthened with more attention to children's holistic development ..." (p. 46). The same report also recommends that more attention be paid to the individual needs of young children, rather than delivering undifferentiated lessons to heterogeneous groups – public schools avoid grouping children by ability in elementary and lower secondary education. If this resulted in the more disadvantaged children being better prepared to follow lessons in elementary school, it could indeed act to reduce the tendency for differences associated with

12. Caille and Rosenwald (2005) use data from competence tests taken by all children in the first term of elementary school and (normally) five years later in the first term at lower secondary school, along with data on parental occupation, age and sex of child and family situation (living with one or two parents, immigrant or mixed origin). A number of expected results are the importance of parents' (most particularly mother's) educational background for success at all levels, and immigrant status. Regression analysis is also able to pick out a clear impact of date of birth within the year.

13. For example, the increase in performance in maths associated with having a mother with a tertiary diploma compared with a mother with no diploma is similar to the increase in performance associated with being almost two deciles higher in the distribution of achievement at entry into elementary school. See Caille and Rosenwald (2005, Table 5, pp. 122-3).

14. Thus, entry into *maternelle* at age 2 instead of age 3, conditional on performance at entry into elementary school, is associated with a decline in performance at entry into lower secondary school equivalent to not much more than one tenth of the impact of moving down one decile in the distribution of achievement at entry into elementary school. This result does not imply that early entry to *maternelle* is counterproductive for children when they reach secondary school age, but that all of the impact is embodied in their performance at entry into elementary school, and may partially 'evaporate' thereafter.

social background to re-emerge. Teaching targets have indeed moved in this direction, with elementary education being more focused on ensuring the acquisition of a minimum set of competences and knowledge. PISA results do suggest that class heterogeneity itself is not an obstacle to good average school performance, but teaching methods may need to adapt to suit the needs of classes with groups advancing at different speeds. In France it is tempting to see the recourse to grade repetition - see below - as a consequence of this heterogeneity, in the absence of sufficient adaptation of teaching methods.

A more individualised approach to education may call for changes in the training of teachers themselves. Teacher training for elementary school teachers has already evolved significantly over the past two decades, in the direction of increasing the length and level of studies required. Qualified teachers will now have the equivalent of a full undergraduate degree, plus two years of specific teacher training, of which the second is largely practical experience. This is the same standard as required for secondary school teachers. The resulting minimum requirement of five years of higher education before qualifying as an elementary school teacher is among the highest in OECD countries (in most, the minimum for teachers in elementary schools is four years). Despite the higher level of education required, however, a possible criticism is that not enough weight is placed on teaching teachers to teach, as opposed to selecting them because of their academic knowledge, which may be of little relevance to teaching in elementary schools. Furthermore, teacher training comes only after completion of a first degree. This “consecutive” approach contrasts with most other countries, in which at least part of a teacher’s training programme has pedagogical instruction running concurrently with their training in some particular discipline; most countries nevertheless also allow the “consecutive” approach as an alternative entry path (OECD, 2005). The new programme in teacher training institutes (December 2006) is oriented towards this form of professional training.

Surveys of teachers indeed show that many of them feel that their training is over-weighted in the direction of ensuring depth of knowledge in their specialised subject, at the expense of practical training in how to deal with classroom situations and in mastering how best to communicate the main messages required at school level.¹⁵ This view of their training is also quite common in other countries (see OECD, 2005). It reflects genuine inadequacies in training but may also result from the fact that new teachers inevitably experience difficult classroom conditions when they start and which only experience can help them to overcome. In France, trainee teachers are almost always allocated “easy” schools for their compulsory year of teaching experience, and they have a reduced teaching load even there. The feeling of being inadequately prepared may thus be partly inevitable, but steps need to be taken to reduce it.

Grade repetition

One area where educational practice is strikingly different in France is *redoublement*, or grade repetition, where students are required to repeat a year after not having reached the level of knowledge and understanding required for promotion to the next year. About 17% of children in France have repeated a year by the end of elementary school, and this proportion rises to 36% by the first year of upper secondary and continues through to the *bac*. By contrast, in many OECD countries, *redoublement* is almost unknown, except in exceptional cases due to illness, for example. Grade repetition has some potential advantages: it could potentially make allowance for the fact that children mature at different rates, avoid having too wide a range of ability in classes so that the slower pupils do not hold back the faster ones, and help to ensure that children do not pass from one year to the next without acquiring a minimum level that allows them to follow the next year’s programme. But in practice these potential advantages seem to be outweighed by other, more powerful, negative effects.

15. See, e.g. Ministry of Education (2006b), though this applies mainly to teachers at elementary school level.

Testing the impact of this practice on educational outcomes can be done only using indirect methods, since it is not possible to randomly assign children to repeat a year and then compare them with those who do not repeat.¹⁶ Despite these methodological difficulties, many studies using different methods have concluded that widespread use of grade repetition is clearly counter-productive at least as far as weaker performers are concerned: children who repeat perform objectively less well in future years than similar children who do not repeat; not only do they perform objectively less well, they tend to underestimate their own ability and are also underestimated by teachers - the fact of having repeated a year tends to stigmatise. Evidence suggests that performance is poor for two main reasons: on the one hand they are discouraged by having been made to repeat a year, and on the other they have less psychological incentive to “keep up” with the class since their better performing contemporaries have moved on. Nor does grade repetition contribute to the objective of reducing the number of children who finish compulsory education with no qualification. Since the period of compulsory education is defined by age, children who may repeat twice or three times can reach the school leaving age before they have any diploma.

There is indeed a strong consensus among researchers in France that *redoublement* is ineffective, and this has in fact been the consensus for several decades. National education policy has also recognised the problem for some time, and grade repetition has been declining: in 1990 less than one in two pupils finished lower secondary school without repeating at least one year.¹⁷

Nevertheless, given the evidence, the question is why *redoublement* remains so widespread, even if declining. An important reason is that conclusions can only be based on statistical analysis. In most individual cases, the children concerned are likely to appear to teachers and parents to be doing better than before. But the incentives facing teachers and schools in France may also encourage the practice. Secondary school teachers’ principal objective is to ensure that they have delivered the full programme for the year to their class, and it is not the job of school principals to change this approach. This programme is relatively demanding in France so that weaker students will struggle. Many parents respond by helping their children themselves or engage private tutors (who are either self-employed or employed by a number of for-profit businesses and who themselves may be school teachers). Access to either kind of help is correlated with family background and incomes, so that this may be one of the reasons why inequalities in educational performance tend to widen in lower secondary education.¹⁸ Two recent initiatives –

16. For example, that 16 year-olds who have repeated perform worse than the average 15 year-old at least partly reflects the fact that the less able children are selected for *redoublement*, rather than in itself proving that *redoublement* is counter-productive. It is necessary to control for this selection bias. Studies that do so nevertheless show that it is indeed counter-productive; see Cosnefroy and Rocher (2004) for further discussion and references.

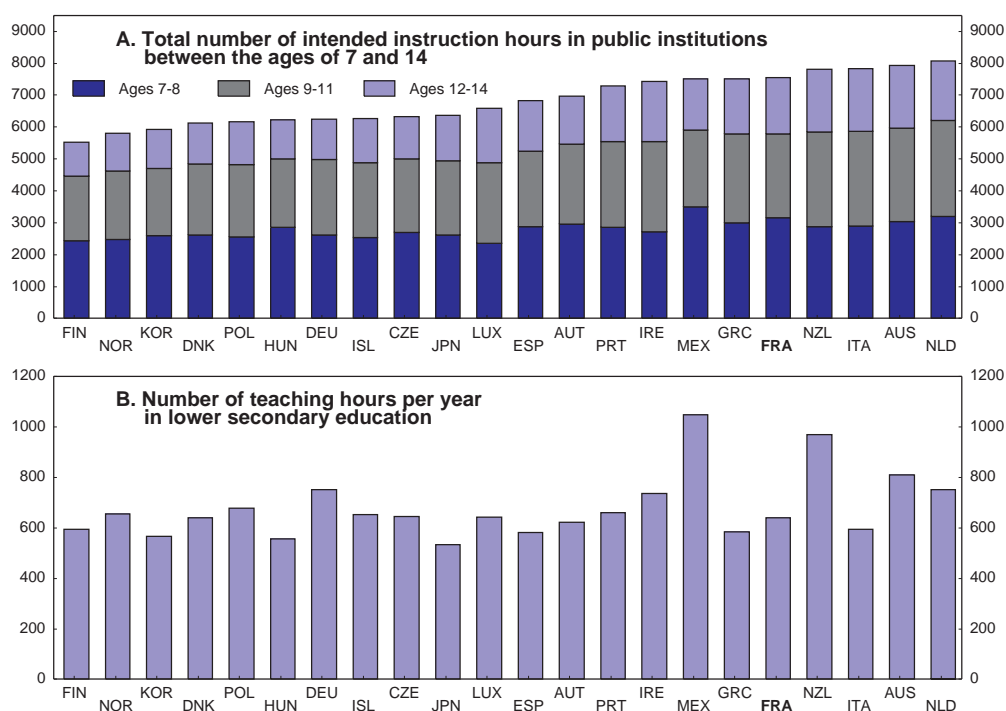
17. The practice is sufficiently common for statistics related to it to be commonly used in investigating factors influencing education outcomes, in the absence of standardised national measures of academic performance after the age of 11. A degree of grading is possible, since a significant minority of children repeat more than once, and a certain number also “jump” one year, so that any particular school year contains a significant number of children from one year younger to two years older than the “normal” age for that year.

18. One question which is not addressed in the literature on *redoublement* is whether the less able children benefit from the more able being held back, with the result that classes are significantly more homogeneous in ability level than in countries with little or no grade repetition (Cosnesfroy and Rocher, 2004, show this greater homogeneity in a comparison of France with England, for example). If they did so benefit, the policy problem would amount to a trade-off between average performance and its variance. Such evidence as is available suggests that this is not the case; countries where teachers put more emphasis on ensuring that all children reach the required level in each year seem to achieve both lower variation in PISA scores and as high or higher average scores than France. This does not rule out the possibility of such a trade-off for certain groups of students, however.

programmes personnalisés de réussite éducative (personalised programmes for educational success) and *actions d'assistance scolaire* (schoolwork assistance) – are intended to resolve this problem.

Figure 5. Instruction and teaching hours

2004



Source: Education at a Glance, OECD Indicators 2006.

The introduction of the common core (*socle commun*) of competences and knowledge at secondary school level, could contribute to the reduction in the use of grade repetition (and thus also release budgetary resources¹⁹), provided it represents a genuine shift towards ensuring that all pupils acquire the common core, even at the expense of reducing the breadth of the curriculum. This would probably require changes in teaching methods as already mentioned. The introduction of explicit disincentives for teachers and schools to use grade-repetition could also be considered. There may be a risk that teachers simply cease making children repeat but do not teach them any better; but even this would, according to most studies, improve overall outcomes, even more so if combined with appropriate changes in teaching methods. Properly assessed value added indicators, discussed below, could also be expected to penalise the use of grade-repetition, without it having to be explicitly discouraged.

Annual school hours for children are higher in France than in most other countries, whereas hours spent by teachers in the classroom are just below the average (Figure 5). School terms are also relatively short, making the period of instruction particularly intense, which is unlikely to favour the slower pupils. More emphasis on ensuring that core competences are acquired by all pupils could involve fewer standard classroom hours for pupils, while teachers would spend relatively more hours in the classroom (as they do

19. A crude indication of the potential cost might be as follows: one third of students are on average one year behind by the time they reach age 15, a lag that has built up over approximately nine years, so that the number of pupils in each year is nearly 4% (one-ninth of one-third) higher than it would be if grade repetition were minimal.

in many other countries), giving extra attention to and time for those with particular problems. A somewhat smaller number of standard hours for pupils, spread over a longer period, could also help this process without necessarily slowing the progress of the more able pupils. Even though evidence from the PISA studies suggests that this can be done and could improve both equity and overall average outcomes,²⁰ this might conflict with pressure to continue producing a very highly educated élite at the same time.

Educational priority zones

Many social problems are strongly concentrated in certain areas (see Jamet, 2007a). Poor educational results, at both primary and secondary levels, are both part of this and a consequence of it; furthermore, they are part of the cycle that reproduces it. In 1982 educational priority zones (*Zones d'éducation prioritaire* or ZEPs) were introduced. ZEPs are defined geographically on the basis of scholastic performance (including national test results, the frequency of grade repetition and the number of children who leave school with no diploma), as well as some more general indicators such as average family size, the rate of unemployment and the share of foreigners in the population. An updating of the policy in 1998-99 introduced education priority networks (*Réseaux d'éducation prioritaire*, REPs), which allowed the advantages of being in a ZEP to be extended to certain other schools with clear problems. By 2004 about one fifth of lower secondary school pupils were in ZEPs/REPs.

Schools in ZEPs and REPs are allocated more material resources than others. Particular objectives are to make free pre-school education available for all 2 years-olds and to develop individually-oriented educational plans, also involving local actors other than schools, for pupils in difficulty, and to improve the social mix in schools. Teacher-pupil ratios are more favourable, and there are provisions for giving teachers higher pay and accelerated career development.

Existing statistical evidence suggests that, on average, and despite a definite though small reduction in average class size, the effectiveness of these policies has been only limited and there was no overall statistical impact of the ZEP programme on educational outcomes in its first decade (1982-92).²¹ Two principal kinds of reasons for this have been advanced. First, it is estimated that schools in ZEPs have only approximately 10% more resources than they would otherwise.²² It is argued that resources spread so thinly in the face of such difficult problems cannot hope to have a significant impact. While it may be the case that resources could be better targeted,²³ the “resources spread too thin” argument is not in itself convincing. In a careful analysis of the impact of class size, Piketty and Valdenaire (2006) show that reductions in class size do have an econometrically significant influence on children’s performance (though they confirm that the actual impact of incremental expenditure in ZEPs would be small), and there is no suggestion in this work that the effects of variations in class size are non-linear.²⁴

20. The Scandinavian countries tend to stand out as achieving this quite successfully.

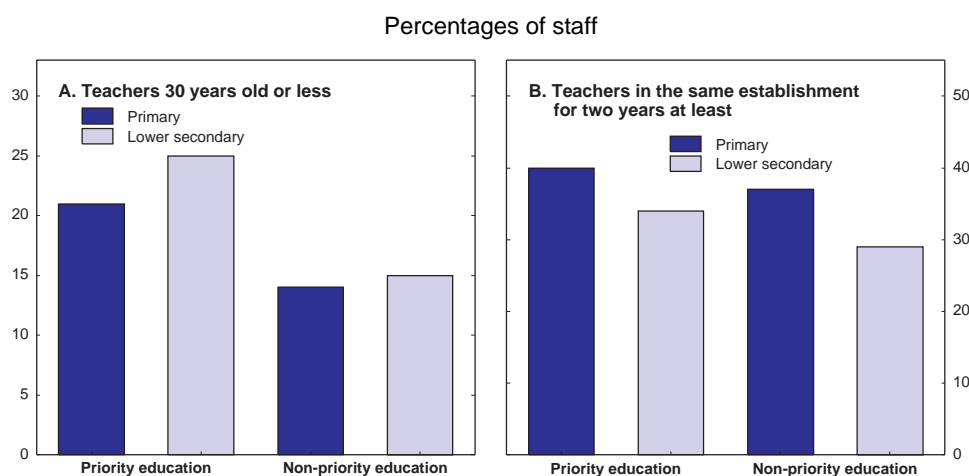
21. See Bénabou *et al.* (2004 and 2006) and Moisan and Simon (1997). The latter assessed what distinguished the more successful ZEPs from the less successful, rather than giving an assessment of the overall programme.

22. This results in class sizes that are lower on average, but not by very much – in 2003-04 the mean effective class size in ZEP/REP schools (elementary and lower secondary schools together) was 21.3 students compared with 23.2 elsewhere. See Ministry of Education (2004).

23. Indeed, this was the main point of the changes introduced in 1998-99, largely following the suggestions of Moisan and Simon (1997).

24. If the effects of resources are linear, a concentration of a given quantity of resources in a smaller area would leave average outcomes unchanged.

Figure 6. Teacher characteristics in priority education



Source: Ministry of Education (2005).

A more important reason for the difficulties faced by the ZEP programme is that it has generated a number of inappropriate incentives. One of these is that once a geographical area has been designated as a ZEP, it has tended to become stigmatised as a “problem” area, so that, where they have a choice, parents tend to move away or avoid moving in. At the very least this simply increases the concentration of social problems in such areas, and possibly has a more than proportional impact on educational outcomes through peer-group effects, although Bénabou *et al.* (2006) concluded that this stigmatisation effect was rather small or even non-existent in the 1990s. But another important effect is through the incentives faced by teachers. Salary bonuses are available for teachers who work in ZEPs. But it appears that they are generally insufficient to attract the more experienced teachers and offset the disadvantages of teaching in ZEPs, not least problems of discipline and violence in the schools. Furthermore, giving incentives in the form of accelerated career progression, in the context of the formula-based method of allocating teachers to schools, has the result that teacher turnover is higher in ZEP schools than elsewhere (Figure 6).²⁵ It seems that many new or inexperienced teachers use the period in a ZEP precisely to acquire the “points” necessary to move more quickly to a position where they can get a job in the area of their choice.

In addition to the possible stigmatisation effect and the clear impact on teacher experience and turnover, Bénabou *et al.* (2006) also suggest that the high variance of outcomes reveals another reason for the apparent lack of impact. They argue that there was little positive incentive to look for improved outcomes so that in many ZEPs no coherent programmes for dealing with children in difficulty were implemented; poor results in these areas masked better results in others. This highlights the importance of getting incentives right at all levels to get the best out of additional (or existing) resources.

In 2006, policy with respect to areas of priority education was substantially modified to differentiate between three levels of need (EP1, EP2 and EP3). Resources are being increased in priority 1 areas, including singling out particular schools for further funding, especially for recruiting more experienced teachers, in the programme *ambition réussite* (“objective: success”). It is also expected that

25. Bressoux *et al.* (2005), in addition to showing that both class size and teacher training have significant impacts on educational performance, demonstrate that the more experienced teachers tend to get better schools - or at least those with classes of significantly higher levels of ability than those that beginners teach, and with fewer children who have repeated a grade.

there will be “mobility” between the different levels of priority, so that some areas should be able to graduate from one level to another or leave the programme altogether.

These changes are a clear response to some of the criticism of earlier policies. They provide for a high level of “contractualisation” intended to generate coordination between different schools and to establish both clear targets and agreement on methods to be used, allowing also for experimentation. Contractualisation appears to be intended to increase accountability for outcomes, though it does not include penalties for poor performance. The new system began to be put in place only during the 2006-07 school year, so it remains to be seen how it works out in practice. Vulnerable elements that remain may include the incentives for individual teachers – accelerated career development is retained as one of the incentives, for example. Nor does the new policy go as far as it could in changing the geographical focus of the programme: an alternative would be to allocate resources to each school as a function of the type of students it receives rather than the geographical area within which it is located. It is to be hoped that the co-operation encouraged by the contracts drawn up among the different bodies involved in education is enriched by coordination with the *réussite éducative* initiatives in the context of the *Plan de cohésion sociale* (Jamet, 2007a).

Maintaining and improving educational standards and efficiency in secondary education

There is no straightforward way to measure overall efficiency in education or even to assess the slightly simpler concept of educational standards, since education generally pursues more than one objective. Over the years 1990-2004, real costs per student in lower secondary school rose 34% and in upper secondary school they rose 50%. It is not clear that results have improved commensurately, so some reflection on cost efficiency is called for. This section considers some available aggregate indicators, the quite numerous recent efforts by the government to evaluate efficiency in particular areas, and some ways in which the organisation of secondary education may influence efficiency.

Recent OECD analysis has provided some cross-country comparisons of indicators of efficiency in education, using results from the 2003 PISA study (Sutherland *et al.*, 2007). This work investigates whether there appear to be countries that use fewer resources while achieving the same or better PISA results,²⁶ or alternatively whether there are countries which achieve better results using the same or fewer resources. On the first indicator, whether inputs could be used more efficiently and still achieve the same level of performance, France is quite highly ranked, with only five countries in which fewer inputs²⁷ could be saved than in France. On the other indicator, which assesses whether better performance could be achieved with the same resources, France is still ranked above average, but here about ten countries perform better.

Two developments that could potentially contribute a great deal to this are the revised presentation of the annual budget laws, following the model laid down by the 2001 framework law (LOLF, *Loi organique relative aux lois des finances*) and the related development of public expenditure audits. The presentation of budgets in terms of output-based programmes has forced spending ministries to identify indicators of performance so that the effectiveness of spending can be assessed. The 2006 budget was the first to be presented fully in this way, and it more experience is probably needed before the most appropriate set of performance indicators can be defined and tested. It can be expected that with time they

26. The indicator used is a combination of the average level of PISA achievement in the country and its variation, to take account of the idea that societies value equity as well as level of average achievement. See Sutherland *et al.*, (2007).

27. The input measure used is a combination of the number of teachers per student and the average socio-economic status of parents. This is of course a different concept from public expenditure on education. See Sutherland *et al.* (2007).

will improve. The Ministry of Education collects a large amount of data and should be in a good position to develop appropriate indicators.²⁸

In parallel with the LOLF, education has been the subject of a number of government audits, at the instigation of the Ministry of Finance. So far these have focused on the teaching load in lower and upper secondary education and on the granting of time off from teaching for various reasons such as training or non-teaching duties. This latter report highlighted how the rules under which such *décharges horaires* were granted, many of which date from the 1950s, had become inappropriate and were in some cases entirely *ad hoc*; reform might imply reducing the total number of non-teaching hours allowed to teachers but targeting them on their most productive uses.

As described earlier, competition between schools, with parents free to choose which one they think would suit their child best, plays no part in maintaining or improving quality in the public sector. Introducing school choice in France is unlikely to be very successful, however, without other major reforms. As Hoxby (2006) notes, three conditions need to be met if school choice is to be implemented successfully: supply flexibility, money following students, and independent management of schools. Supply flexibility means that schools in demand have to be able to increase capacity and those rejected have to close; if not, at best the only result will be that some children may find schools better suited to their needs (if there is some variety in schools' approaches), at worst everyone suffers as choice results in "churning" without any overall increase in performance. Money must follow the students to give the schools a material incentive to expand and to avoid losing students (and the amount of money that follows has to be carefully calibrated). Independent management is required so that schools are motivated to follow these incentives. In France, while the second condition may be said to apply for the small number of children that currently go to schools other than those in their catchment area, the others do not. In any move towards more choice it would be necessary to implement these three pre-requisites, as well as to take into account parental access to relevant information and ability to make optimal choices.

Even if individual schools and their principals had more management autonomy, they cannot have any choice over the main input – the teaching staff – without radically changing current recruitment procedures. Giving school principals the possibility of hiring (and firing) the bulk of teaching staff would be strongly opposed by teachers. In the past, teaching unions have successfully resisted suggestions that school principals should be responsible for the teaching assessments currently carried out by the inspectorate. On the other hand, the inspectorate has found that school principals can make a difference in turning round schools that are performing badly. As noted earlier, part of the *ambition réussite* programme gives school principals the power to recruit various teaching assistant staff, although not the main teachers themselves, recognition that such local management flexibility can be important.

Although schools cannot compete for students, the Ministry of Education has for a number of years compiled statistics showing the relative performance of *lycées*. These are based on the rates of success different schools have in getting their students through the baccalauréat exam. Simply ranking schools on the basis of crude success rates would reflect as much the intake of the schools as their performance, so the measures are adjusted to generate so-called "value added" indicators. Unfortunately, although these measures are useful, they are not true value added measures, since no information is available on the performance of students at entry into the schools. Instead, the crude success rates are adjusted using available information on the social origins of the students to arrive at the published

28. Much of this data is freely available on the Ministry's website <http://www.education.gouv.fr>. Data collection has its own costs, of course, and certain kinds of data from a large number of elementary schools have been unavailable for several years as heads of establishment have refused to collect them, in protest at the increasing burden that such data collection and other administrative tasks represent.

measures: the success rates that each school would have achieved, according to a regression model, if their intake had matched the national average of indicators such as the parents' level of education.

Improving these performance measures so that they represent true "value added" should be done as soon as possible, and they could be extended to lower secondary, and indeed primary, schools. Nationally standardised tests to measure pupil achievement already exist at ages 8 and 11. Although all students already take the *brevet*, the exam taken at the end of lower secondary school, it ceased to be a nationally standardised exam some years ago; hence the difficulty in measuring value added. The decision to revert to a national basis as from 2008 means that by 2010 a better approximation to "value added" should be available. Until then, provisional measures could nevertheless be developed, with comparability between schools limited to those within the same educational district or to those whose pupils take the same *brevet* exam.

Carefully assessed measures of value added would be useful regardless of the model of school choice that might be adopted. They would encourage schools and teachers to compete not only for the 'best' pupils but also for those who need more help, where just as much "value" may be added. However they were calculated, value added measures based on exam results could not be the only measure of teacher or school performance, however; other indicators, perhaps related to social development, for example, should be considered.

Higher education

The paradoxes of higher education in France were noted earlier. But this does not mean that higher education in France is especially inefficient overall: the returns to higher education are relatively high, for example (Box 1). This section looks at two particular aspects of the system where it does nevertheless appear that a reallocation of resources could be beneficial. It concentrates on the teaching aspects of higher education rather than addressing problems of research output and coordination.

Box 1. The returns to higher education

Individuals' earnings increase in line with the level of education they have completed. In 2004, among 35-09 year olds, the salaries of those with at least an undergraduate degree (*bac* + 3 years) were on average about 70% higher than of those who had no diploma beyond the baccalauréat, who in turn earned about 30% more than those with no diploma at all (Table 5). Those who had followed shorter post-baccalauréat courses earned a smaller premium over holders of the baccalauréat, earning about one third more. Among older workers the premium for the baccalauréat over those with no qualification is somewhat greater, probably reflecting the greater relative scarcity of holders of the baccalauréat among older generations. The benefit to higher levels of education is also felt in relative exposure to the risk of unemployment. Although it persists throughout working life, this effect is felt particularly among younger people: in the 25-29 year age group, the rate of unemployment among those with the baccalauréat or other upper secondary diploma is about 9%, compared with 17% among those with no qualification and 6% among those with a diploma from higher education.

Table 5. Earnings premium relative to worker with no qualifications, 2004

Index, worker with no qualification = 100	Age group		
	30-34	35-39	50-54
Baccalauréat	119	130	162
Short higher education	142	163	186
Long higher education	177	222	231

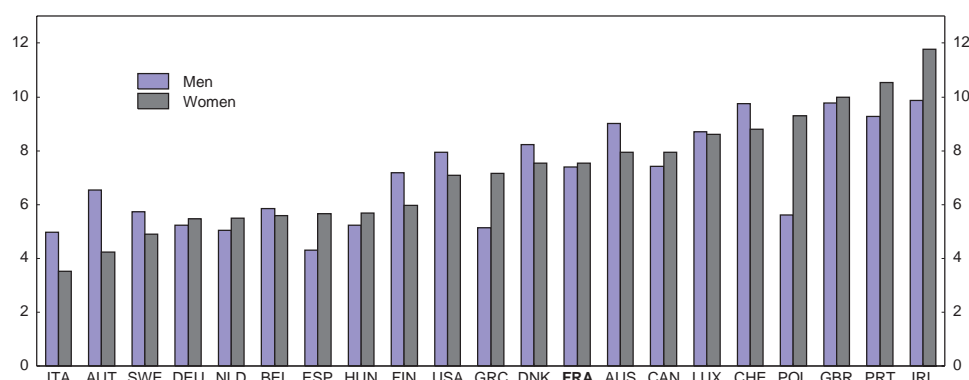
Source: Ministry of Education (2005a).

Box 1. The returns to higher education (cont'd)

Recent OECD calculations have estimated the internal rate of return for higher education by taking into account the resulting differentials in lifetime incomes between holders of higher diplomas and those with only an upper secondary diploma, as well as the cost of the education (both the direct monetary cost and the opportunity cost in terms of foregone earnings) for a number of OECD countries. For France the internal rate of return is estimated at about 8%, roughly in the middle of the distribution of OECD countries, for both men and women (Figure 7).

Figure 7. Estimates of the internal rates of return to higher education¹

Per cent, 2001²



1. Labour productivity is assumed to grow at 1.75% in all countries.

2. Except Poland and Switzerland: 2000 and Hungary: 1997.

Source: Sutherland *et al.*, (2007).

Public universities, fees and selection

Because youth unemployment is particularly high in France, the calculated opportunity cost of years of study in the calculations above is relatively low. High take-up is also encouraged by very low university fees, which rarely exceed a few hundred euros per year except in some of the more selective areas such as business schools.²⁹ The absence of selection at entry, other than via possession of the *bac*, dates back to the time when the baccalauréat itself was obtained by relatively few people and its content broadly matched the kind of learning skills necessary to follow an academic course at university. With the expansion of access to the *bac*, and its broadening to include other skills, this is no longer true.

The result is that many students with a vocational baccalauréat, or with a general or technical baccalauréat but with low grades, have no other option than university if they wish to take higher education. Although universities are likely to be able to predict the chances of success of many of these weaker students, they are not able to turn any of them away (except for geographic zoning reasons, which in practice apply only in the Paris region), and so the selection process in practice occurs at the end of the first or second year, with some students repeating one or both of those years before eventually dropping out. From time to time ministers of education have suggested that some form of selection at entry is

29. In these, and the selective engineering schools, fees may be up to 6 000 euros per year.

necessary, but it has never been possible to implement any such proposals, partly due to the intense opposition of student organisations.³⁰

One development that illustrates some of the dynamics involved is that of the IUTs (*Instituts universitaires de technologie*, University Institutes of Technology), introduced in the 1966 and greatly expanded over the last 20 years. The idea was to develop courses shorter than the standard three or four years to *licences* or *maîtrises*, oriented towards professional rather than academic studies. They are located within public universities, but given independent constitutions to allow them to select the students most suited for such courses – those who would be less able to follow the longer academic courses. Selection is largely on the basis of school reports and baccalauréat results. The IUTs are relatively well endowed, with more resources per student and smaller teaching groups than the mainstream universities, and as a result, demand for their courses is quite strong and they are able to select high-quality students. An important part of their courses is devoted to work-experience programmes, and employment rates among recent graduates of the IUTs are very high. Furthermore, about nearly two thirds of IUT graduates choose to stay on in higher education, moving to one of the selective institutions or rejoining the non-selective public universities but at a level where many of the weaker students (*i.e.* the group for which the IUTs were intended) have probably already dropped out.

The IUT programme is thus rather successful, but it is viewed by policymakers as in one sense a failure, because it did not help the target group it was originally designed for.³¹ It illustrates a paradox: the introduction of general selection at entry is unpopular, but a large proportion (perhaps the majority) of students prefer, if they can, to attend a selective institution, and the results obtained in them are better.³² It seems unlikely that a system that refuses to introduce serious selection, either through entry requirements or charging significant fees which bear some relation to costs or expected returns, can avoid this problem.

Recently, the government has proposed to introduce, not selection, but an “orientation” policy whereby students will be encouraged to register earlier than they habitually do (most do not register until the summer, once they know the results of their baccalauréat). Universities would consider their record, and in some cases give “guidance” as to the appropriate kind of course for that student. They would not, however, be entitled to refuse a place to an eligible student. Universities are also expected to provide more information on their courses and information related to the employment record of past students on their websites; a number of universities have already begun to do this. This kind of initiative could be useful in avoiding some of the worst misallocation of students across courses and would certainly improve the efficiency of student choice in any system; it is unlikely to eliminate the underlying problem that if costs are low and access is unrestricted, excessive numbers of people are likely to enrol in public universities.

30. It is frequently mentioned that any minister of education who has proposed this has eventually had to resign.

31. This view is relative, however. While only 15% of students with a bac professionnel who enrol in a public university obtain the diploma (DEUG) denoting successful completion of the first two years of studies (which takes up to five years to do for several thousand students each year, since repeated redoublement is possible), 51% of this group successfully complete the IUT courses and four fifths of these complete on time in two years. (Data for 2003. Source: Ministry of Education, 2005a.) On the other hand, less than one third of all IUT students have the bac professionnel; two thirds have the general version.

32. A more unusual example of this pressure is the university Paris Dauphine (Paris IX). One of the more highly reputed institutions in the field of economics, Paris Dauphine operated a system of selective entry that was, strictly speaking, illegitimate but tolerated. In 2004, it obtained a change in its statutes to make it one of the grandes écoles and is therefore no longer a public university. A small number of other universities also have some more or less tolerated de facto selection procedures.

The universities will be obliged to continue to use the initial one or two years as a *de facto* selection tool, with the weaker students eventually dropping out.³³

Although this group of weaker students is quite large, not all of those in it simply drop out of higher education with no qualification. According to Cour des Comptes (2003, p. 315), of 100 students who register for the first year at a public university, 23% of them will repeat that first year, 15% change course to an IUT or BTS course, and 20% will leave university without a higher qualification. But perhaps half of the last group eventually enrol elsewhere and obtain some kind of diploma later on, or drop out only because they have passed an equivalent competition for some specific employment.

Grandes écoles

The *grandes écoles* are a rather heterogeneous group of institutions. Many of them originated as places for training the élite for the military and then for public administration, as well as to train teachers and researchers for the universities themselves. They are mostly relatively small and specialised in the subjects they teach. In recent times, the distinction between their role and that of the universities has become more blurred, however. In many cases it seems only by accident rather than design that engineering schools, for example, are distinct from universities (some of them, indeed, are linked with universities). One of the characteristics of the *grandes écoles*, which is likely to lead to pressure for their reform, is that their diplomas do not fit easily into the increasingly standardised international nomenclature for academic study, on which the French system is now aligning itself, of a three-year bachelors degree followed by a one- or two-year masters and then the doctorate. Instead, students effectively study for five years and are then awarded a masters degree, with no intermediate diploma.

Although they charge higher fees than the universities, public expenditure per student in the *grandes écoles* is high. Numbers in the most selective institutions are naturally relatively small, and even including the engineering schools and other institutions for which *classes préparatoires* are also required (and collectively all these institutions are generally referred to as the *grandes écoles*³⁴) they account only for about 10% of the over 2 million students in higher education. As Table 2 shows, it is not only these institutions that are better funded than the universities: the centres of higher vocational studies, the STS, also cost relatively more, again largely because of higher staff-to-student ratios, and partly because they need more technical equipment. But it is also likely that the private returns to education are the highest for students in the *grandes écoles*, since they provide most of the executive class in the private sector; senior civil servants and most politicians are also graduates of these institutions.

In most other countries, most of the functions of the *grandes écoles* are provided by broader-based universities forming part of the normal university system (although elite institutions always emerge). Because of the heterogeneity of the *grandes écoles* as a group and the specialised nature of most of them as individual institutions, as well as the special interest groups that have developed around them, it is hard to imagine moving rapidly to such an approach in France, though successful mergers would no doubt produce efficiency gains in the long run. However, steps could be taken that would generate some of

33. It could be argued that this is a cost-effective approach, because it has the merit of allowing late maturing students who might not otherwise have qualified to get a university education. On balance, this seems unlikely.

34. The list of *grandes écoles* and *grands établissements* issued by the Ministry of Education covers about 40 institutions (compared with about 80 universities) and includes, for example, the Paris Observatory and the national natural history museum; but it does not include the *École polytechnique* or the *École nationale d'administration*, generally considered the elite of the elite schools. The term is used in this paper to cover educational institutions for which entry is (mostly) through *classes préparatoires* or other selection methods involving several years of study beyond the baccalauréat.

the advantages of this approach. The main one would be to align all the *grandes écoles* and the system of *classes préparatoires* on the increasingly internationally accepted BAMA (Bachelors-Masters) standard (*LMD* in France). There would be no reason why universities could not offer courses leading to the *grandes écoles*, who could select a larger part of their entry on the basis of university diplomas, rather than relying exclusively on their own entry examinations. Already, in fact, students in *classes préparatoires* frequently enrol in universities in parallel, without attending classes, or take exams as external candidates, to obtain a university degree.

With a more standardised structure of diplomas,³⁵ which might require some national peer review system to ensure comparable standards across institutions, the universities and the *grandes écoles* could also compete in offering many of them. With more comparability of structure and content of teaching in different institutions, it would be easier to rationalise funding. The high level of per capita subsidy that goes to students in some of the currently highly selective institutions would be easier to redistribute once other institutions were competing to offer similar qualifications. However, as noted when considering the possibility of introducing parental choice into secondary schools, a prerequisite of this kind of approach would be more flexibility and autonomy in the operation of universities. Recent OECD work on the determinants of investment in higher education shows that, despite the quite reasonable overall rate of return to higher education noted earlier, France's system rates extremely low on overall input flexibility (only Greece, Germany and the French-speaking part of Belgium have lower scores on flexibility). The relative lack of freedom to select either students or staff is important parts of this. A report from the Cour des Comptes has already called for giving universities increased autonomy and flexibility (Cour des Comptes, 2003).

Direct subsidies to students

Although fees are generally low, there are few direct subsidies in the form of grants or loans to students. A large number of students live with their parents, and public universities' students are largely recruited from their geographical catchment area. In recognition of this, income tax allowances for dependent children are extended to parents with children in full-time education; the effect is highly regressive, however, as the greatest benefit goes to high-income parents whose children will, on average, also be getting the greatest subsidy and the highest private returns from education anyway. Means-tested grants, and others based on academic criteria, do exist but are not widespread; there is also some housing aid available. In some cases loans are also available, with deferred repayment, but availability is patchy and take-up is low. If a reform of university finance were to include substantial increases in fees so as to improve the quality of public universities, it would be necessary to put both of these systems on a sounder footing if the reform were not to have a detrimental impact on participation of students from lower income families.³⁶

35. In fact, there is a huge variety of existing diplomas in higher education, much more than the sketch in Table 2 might suggest. Job descriptions, for example, frequently refer to qualification requirements in terms of "bac plus x" years of study, rather than referring to a particular diploma.

36. It can be argued that, from a market-oriented point of view, since the student is the main beneficiary from higher education, education institutions should charge full cost fees and the only public intervention necessary might be in the form of loan guarantees if students or financial markets are excessively risk averse. Linking repayment of the loans to the subsequent level of earnings would also be an element of risk sharing. Means-tested grants might be unnecessary even in the presence of inequalities. There is some debate about how social externalities from higher education are generated: does society have an interest in a more highly educated population than individuals would choose, even when protected against some of the risks? If so, means-tested grants would be a useful policy tool. In the French context, even without such externalities (but most French policymakers probably believe, implicitly, that they exist), it is hard to see

Conclusions and recommendations

French legislation allocates the education system a number of tasks for the economy: creating human capital, preparing young people for the labour market, reducing inequality. Assessing its success is not straightforward, since relevant outcomes, such as productivity and its rate of growth, unemployment and wages and their distribution, are also affected by many other policies.

The high rate of youth unemployment may be due to inadequate preparation for the labour market, but is also due to the too high minimum wage and employment protection legislation. It may in addition be related to an unwillingness to take low-status jobs for fear of getting locked in to a low-status career path. This in turn may be related to employers' excessive preoccupation with formal qualifications both in recruitment decisions and often in career advancement decisions, to the detriment of measures of on-the-job performance and achievement; signs of this can be seen, for example, in the career structures for teachers themselves. Although underlying productivity growth in France has been modest, the level of productivity per hour worked is relatively high, suggesting that plenty of human capital is being created, even if it may be unevenly distributed and perhaps could be produced and used more effectively.

As for reducing inequality, it is very hard to tell how successful the system is. Some aspects of education – the *carte scolaire* and central allocation of teachers, for example - are clearly designed to try to impose equality of treatment. Work reported here suggests that at least compared with a small number of other countries, France does not in fact do much better than others in limiting the transmission of inequality. Others - toleration of the élite *lycées*, the resources directed towards *classes préparatoires*, the importance attached to the final ranking of students in institutions that only a tiny proportion of students are capable of entering - suggest a system directed towards detecting and then privileging the successful minority.

These difficulties with assessment and a degree of potential conflict between objectives lead the policy recommendations below to favour changes that are intended to better align incentives with performance and desired results. Many of these recommendations are already contained in national reports, such as those from the *Cour des comptes*, and from the audits of parts of the education system.

Box 2. Recommendations on education

Secondary education

Introduce measures of secondary school performance based on genuine "value added", for both lower and upper secondary schools. Such measures should be used to establish benchmarks for school performance, which should become an explicit focus for school principals and the education inspectorate.

School principals should be given direct responsibility for maintaining and improving performance against these benchmarks, with substantial autonomy in recruitment and reward of teaching staff and other resources. In the absence of such increased autonomy and responsibility for individual schools, the relevant local, regional or national education authorities must be given the incentives and the means to take prompt action in poorly performing schools.

Change the system of career progression, which rewards more experienced teachers by paying them the same salary regardless of where they choose to teach. Give experienced teachers greater incentives to remain in or move to areas where their experience is needed, but in the form of variations in salary or teaching load that are contingent on the particular job, not in the form of steps up the career ladder.

how the system could move from its current structure directly to a market-based system with student loans; an extensive system of means-tested grants would be necessary, at least for a (fairly long) transition period.

Extra resources for areas with particular needs should, as far as possible, be directed through use of a standard formula that takes into account relevant needs, largely on a school-by-school basis, rather than by separately specifying special geographical areas. The ZEP structure of educational priority zones could be retained for purposes of coordination and information exchange.

Make the rules which apply to the *carte scolaire* clear and enforce them everywhere. If parental choice is not to be the general rule because it generates inequities, then it should not be an option for the well-informed. If, on the other hand, parental choice is to be so used, the procedures should be clear and open to all; other far-reaching reforms to ensure supply flexibility, appropriate budgetary allocations and school autonomy would be necessary.

Higher education

Introduce stronger orientation for university entrance early in the last year of *lycée* and ensure that the supply of training allows young people to go where they have the best chance of succeeding. In the longer term, holders of the baccalauréat should not have the right to free university education in any subject they choose if the university considers them highly likely to fail the first year. Build on the successful models of the IUT and STS, including their emphasis on links with employers, provided they respect their original mission.

To introduce more funding into higher education and to improve the allocation of resources, charge higher tuition fees, related to the cost of provision. Introduce a nationwide system of student loans with provisions for income-contingent repayment through the income tax system. A system of means-tested grants could supplement the loan system. Any grants should be only for a fixed length of time, equal at most to the normal length of the course and subject to an overall ceiling, to discourage *redoublement*.

Consider on what grounds the separate system of rules for the *grandes écoles* is justified. They too should generally issue diplomas integrated into the Bologna scheme, which in many cases could also be offered by universities. The *grandes écoles* should then recruit from among holders of first degrees from universities as well as through the *classes préparatoires*.

Managements of higher education institutions should be given autonomy (as recommended by the Cour des Comptes), in both financial and personnel management and recruiting, in order to develop the range of courses they offer and to be held accountable for outcomes.

Teacher training

Training for teachers should give more emphasis to classroom skills, especially those related to dealing with heterogeneous classes. As well as selecting teachers on the basis of their deep knowledge of a single subject, some could also be selected and trained to teach more than one subject to improve flexibility in teacher allocation.

Research into education

Further develop the wide array of information and studies already provided by the Ministry of Education. Indicators and analysis should cover the whole range of educational institutions, not just those that come under the education ministry. Encourage independent researchers to use these databases. Continue and enhance French participation in international data collection exercises and analysis, for OECD and other international comparisons.

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Glossary

BEP	Brevet d'études professionnelles	Certificate of technical education
BTS	Brevet de technicien supérieur	Vocational Training Certificate
CAE	Conseil d'analyse économique	Council for Economic Analysis
CAP	Certificat d'aptitude professionnelle	Vocational training qualification
CDD	Contrat à durée déterminée	Fixed-term employment contract
CDI	Contrat à durée indéterminée	Permanent employment contract
CERC	Conseil de l'emploi, des revenus et de la cohésion sociale	Council for Employment, Income and Social Cohesion
CEREQ	Centre d'études et de recherches sur les qualifications	Centre for Study and Research on Occupational Skills
DEA	Diplôme d'études approfondies	Post-master Advanced Studies Postgraduate certificate (prior to doctoral thesis)
DESS	Diplôme d'études supérieures spécialisées	Post-master in Advanced Specialised Studies Postgraduate degree taken after Master's
DEUG	Diplôme d'études universitaires générales	General University Diploma University diploma taken after two years' study
DUT	Diplôme universitaire de technologie	University Diploma in Technology Two-year diploma from a university institute of technology
HEI	Établissement d'Études supérieures	Higher Education Institution
INSEE	Institut national de la statistique et des études économiques	National Institute for Statistics and Economic Studies
IUT	Institut universitaire de technologie	University Institute of Technology

LMD	Licence, master, doctorat	Bachelor, master, doctorate
LOLF	Loi organique relative aux lois de finances	Constitutional Bylaw on Budget Acts
PISA	Programme international pour le suivi des acquis des élèves	Programme for International Student Assessment
REP	Réseau d'éducation prioritaire	Priority Education Network
RMA	Revenu minimum d'activité	Minimum employment income
RMI	Revenu minimum d'insertion	Social/occupational integration minimum income – minimum benefit paid to those with no other source of income
SMIC	Salaire minimum interprofessionnel de croissance	Guaranteed minimum wage
STS	Section de technicien supérieur	Advanced vocational course
ZEP	Zone d'éducation prioritaire	Education Priority Zone
ZUS	Zone urbaine sensible	Sensitive Urban Area

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