Effective reporting in education

Enabling local management and focussing
investment to achieve national targets

John Mayo

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Acknowledgements

Public Services Productivity Panel

Modernising government

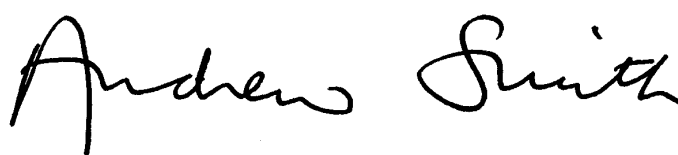# Foreword by the Chief Secretary to the Treasury

Successful public services lie at the heart of a successful economy and society. At their best, they respond quickly to their customers, operate efficiently, and set the highest standards of quality and probity. In practice there have been wide variations in quality and in some areas ineffectiveness and waste have been tolerated. *Modernising Government* – the drive to achieve better, more responsive government and public services – means raising all services to the standards of the best and recharging our public organisations with fresh vigour, incentives and ideas.

As part of its comprehensive plan for modernisation, the Government has recruited a team of top private sector managers to the Public Services Productivity Panel – with a remit to advise on improving efficiency and productivity. The focus on productivity is linked in particular to the Public Service Agreements (PSAs), now published for all Government Departments, which enable the Government to track performance, improve accountability, sharpen responsiveness and inform investment. The role of the Panel is to support Departments in raising standards to achieve or outperform their PSA targets, providing a source of practical ideas and new approaches.

Each member of the Panel is focussing on a different area, working with individual Government Departments and agencies to identify solutions that will increase productivity. In doing so, the Panel recognises that there is no monopoly of wisdom in the private sector about how to raise productivity. Instead, it is the blend of fresh ideas and learning from good practice in our public services that can provide the spur to improvement. The findings of each project will be published and the main themes from the individual studies will be brought together into an additional report later in the spring.

I am grateful to John Mayo, Finance Director of Marconi plc, for preparing this report which focuses on education and in particular on how performance is measured and reported in such an extensive and diverse sector. Building on the substantial progress that has been made by the Department for Education and Employment to increase the availability of information about how individual schools are performing, his report makes recommendations for a streamlined, internet enabled, reporting system to help to raise performance to the standards of the best.

Our challenge now is to translate these findings into clear and meaningful public benefit. Expectations of all those who use public services are rightly ambitious. By involving valuable private sector experience in our drive to modernise government, our promise is to match that ambition with excellence for the many, not the few.

Rt Hon. Andrew Smith MP
Chief Secretary to the Treasury

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EXECUTIVE SUMMARY

Education is the Government's highest priority. To help to raise standards in education and to encourage lifelong learning, the Department for Education and Employment (DfEE) has set a number of national targets (set out in Appendix 3). This report considers how to make best use of performance information in schools and further education colleges to promote achievement of those targets.

The use of pupil performance information to help to stimulate improvement in schools is already well developed. For example:

■ the DfEE's online *Autumn Package* publishes summary results of National Curriculum tests and GCSEs to enable headteachers and school governors to compare the performance of their school with national averages

■ Ofsted prepares annual *Performance and Assessment Reports* for all schools, which compare the school's performance against national levels and benchmark it against similar schools

■ schools publish details of their targets and performance in their annual report to parents.

Building on the progress already made in the schools sector, this report makes recommendations for refining the focus of performance reporting and for making greater use of performance information to help to raise standards. The report's main recommendations are:

■ all performance reporting to focus on the same key targets defined by the Government (without the distraction of other less relevant items)

■ include in the key targets a measure of (relative) value for money – that is to say, a measure of what is being achieved per pound spent per pupil in each school

■ further develop benchmarking of schools, through cross-segmentation, to ensure that we compare like with like

■ schools to report prominently and clearly to parents and other stakeholders against the key targets to generate local interest and pressure on the school to improve

■ Local Education Authorities and schools to plan for improvement in the key target performance areas and to explicitly report them, together with their actual results, so that parents and other stakeholders can see planned improvements and performance against plan

■ hold individual headteachers responsible for their school's performance

■ reduce administration for schools by limiting non-statutory reporting to the key Government targets and by developing an internet enabled information management and reporting system.

These recommendations apply equally to further education colleges. However, the scope and diversity of the post-16 education and training sector present an additional challenge in establishing a clear set of targets for FE colleges. To address this, the report recommends:

■ applying the same targets and benchmarks to all providers of post-16 education

■ translating the Government's objectives for lifelong learning into a clear set of targets for FE colleges. The report proposes five measures:

– social inclusiveness
– participation rate
– student achievement rate
– value for money
– employability

■ setting up a working group to study the feasibility of the adoption of a sector-wide excellence model.

The report suggests several other areas for possible investigation and makes a number of other observations and recommendations, but **none should detract from the Government's drive to ensure measurement of the key performance indicators, planning for and forecasting improvements in the key performance indicators, and to encourage and empower headteachers and college principals to deliver improving educational standards and value for money.**

It is appreciated that whilst work is already in hand and, indeed, well advanced in some of the areas covered here, there is much still to be done in certain areas before the report's recommendations can be fully implemented.

TERMS OF REFERENCE

The terms of reference for this study agreed with the Secretary of State for Education and Employment are as follows.

Schools

To support the DfEE in its efforts to achieve its aim, objectives and targets for raising standards in education and improve productivity, accountability and value for money in the schools sector by examining:

■ the DfEE's communication channels to and from schools, particularly headteachers

■ how to encourage meaningful comparisons between schools, and

■ how the DfEE could help spread good practice among schools, ensuring that individual schools are held accountable for their performance

and identifying scope for improvement.

Further education

To support the DfEE in its efforts to achieve its aim, objectives and targets for raising standards in education and improve productivity, accountability and value for money in further education colleges by identifying:

■ the key benchmarks which would enable colleges to compare their performance against that of other colleges

■ how the DfEE could help colleges to spread good practice to each other, based on these benchmarks, and

■ the timescale over which colleges should be taking account of the results of benchmarking

and having regard to relevant benchmarks in other sectors.

INTRODUCTION

In conducting this work we have been struck by the extensive nature of the Department's responsibilities (circa 24,000 schools, circa 450 colleges of further education and 200 other institutions providing FE) and by the clarity of targets adopted by the Department when it signed the Public Service Agreement.

The provision of information on school and college performance to parents and other partners in education is key to the Government's overall strategy for raising standards and very large quantities of data are currently collected by a number of different bodies. Despite the volume of data, however, we believe that there is scope for improvement in the presentation of information to parents and other stakeholders about how well individual schools or colleges, groups of similar schools or colleges – or the sector as a whole – are doing against the key measures of success.

There is not complete alignment between the data collected and the Government's published aims and objectives for education and training. We feel that, as a consequence, schools and colleges do not report their performance against Government targets to parents and governors with sufficient clarity and prominence. Moreover, the presentation of some of the data in dense tabular form makes it difficult to identify examples of good practice and value for money. Potential productivity gains within schools and FE colleges cannot be identified without more meaningful information.

Schools are responsible for achieving the targets for those under 16 years old, but FE colleges are not monopoly providers of education and training for young people and adults. The responsibility for achieving lifelong learning targets is shared between school sixth forms, further education colleges, employers, training providers in the private and voluntary sectors and individual learners themselves. There is therefore some overlap between the remit of the schools and the further education elements of this study. This is highlighted in the case of school sixth forms (please see the table at Appendix 5 on 16 to 18 year olds in education). Equivalent providers teaching the same programme to similar students have different governance and funding arrangements solely as a result of the sector they find themselves in. This overlap of services, with schools the better funded on average, may lead to inefficiencies. As the Government is addressing these matters through separate consultations our recommendations focus on FE and schools as discrete units. However, we recommend that the statistics gathered and targets set for schools and FE be made consistent for post-16 year olds.

Unfortunately, the funding and management of education is also organised in a less than straightforward fashion. A large proportion of school funding passes through LEAs (please see the diagram at Appendix 7 outlining funding arrangements), further reducing the alignment between the Government's national objectives and the actions of individual schools "at the coal face". To address this, the Government requires individual schools to negotiate their own performance targets with their LEA, contributing to the national targets. Our work has been conducted on the basis that there are good political/social reasons why these less-than-straightforward methods of organisation exist. This assumption effectively excludes a recommendation to change the overall structure of government in this area – i.e. to do away with the role of LEAs – and effectively accepts

the status quo in terms of the role of different educational institutions. It is not necessarily optimal to exclude these options but we do not believe structural change is necessary to effect enough management change to materially improve performance.

This short paper focuses on how, within the current governmental structure, you might build on existing processes and develop new ones to make further use of management information to specifically stimulate improvement in the areas targeted by Government. The paper's focus on targets, reporting systems and management information is not to suggest that we believe that these are the most important factors in raising standards in education and encouraging lifelong learning. The quality of teachers, headteachers and principals is of course paramount but we believe that information can have a very positive influence on behaviour and achievement. Knowing, and reporting on, how performance measures up against relevant benchmarks is an important starting point in a process of continuous improvement.

SCHOOLS

Statement of principles

The proposals set out in this report are based on the following principles:

■ the elected Government should set national objectives and targets for schools – as it has (please see Appendix 3)

■ individual schools should transparently report against the full set of Government targets

■ the headteacher should be held responsible for his/her school's performance and the efforts made to improve performance

■ the processes and structures should be robust and flexible and should enable a system of devolved responsibility, remote management and more focussed intervention. The need for this is dictated by the extensive nature of the sector and the current structure, with LEAs between central government and schools

■ the system should be forward-looking, flexible and open. Flexible so that it can adjust to changes in Government targets and open so that information positively influences behaviour.

Current performance reporting systems

A multiplicity of performance-related data are currently reported to various stakeholders.

■ Results at key stages 1, 2, 3 and GCSE are collated annually. This forms the basis for a number of reports. Performance tables for secondary schools and FE colleges are published annually by the Secretary of State and for primary schools by LEAs. Each individual school's position in the national league table is reported to parents annually in the school's Annual Report.

■ The DfEE's *Autumn Package*, now on line, provides performance distributions for groups of schools within bands of schools with similar circumstances. Each school can find its own band and see how well, or badly, it is doing against a big group of comparator schools. Headteachers and governors therefore have national results information, benchmark tables, and national value added analyses. "Value added" in this context means how much the school has brought on its pupils since the last stage when their achievement was measured. National value added figures are based on a pilot study of the progress pupils have made between adjacent key stages. These measures are presented as line graphs and as bar charts to help schools understand the progress their pupils have made when compared to others with similar starting points. Headteachers and governors can use these to assess their own school's performance against national levels, benchmark the school against its peers, and assess the progress

their pupils have made. DfEE is piloting an interactive *Autumn Package* to help schools plot their own results against national results

■ Ofsted produces annual *Performance and Assessment Reports (PANDAs)* for all schools separately, which compare their performance against national levels and benchmark them against similar schools. These are distributed early in the New Year and complement the analyses in the *Autumn Package*, using the same benchmark tables

■ Financial information is reported to Ofsted, to the school's LEA, and to parents in the Annual Report

■ LEAs gather their own information about schools' circumstances and results, for their own use

■ The Audit Commission, which looks at efficiency, economy and effectiveness in local authorities, publishes performance indicators for LEAs. It is also currently piloting an interactive database for schools, based on information available from 30 LEAs, which shows how an individual school's costs rank alongside other similar schools.

There is a wealth of information in the system but it is complex and not all in one place. This report recommends that a small number of key statistics relating to the Government's performance targets and productivity ("value for money") should be distilled from schools' data and presented by the school in a concise, clear and prescribed way to parents and all other parties with an interest in performance. This transparent self-reporting will increase the understanding of parents and the "ownership" and responsibility of headteachers.

Management process

A great deal of information is now available to schools through the internet. The Government has established a Standards website to help spread good practice amongst teachers and a website for parents. Building on these foundations an internet-based management system needs to be developed that collects and presents relevant information for each school, enabling its performance against Government targets to be monitored by the Department and by parents. "Relevant information for each school" means performance metrics for each Government target and the relevant unit cost of achieving that performance as compared to an homogenous population of similar schools. This requires schools to be cross-segmented into groups that headteachers agree are broadly fair, with reasonable similarity between the schools in the segment, so that genuine comparisons can be made.

Targets

The Government announced the latest targets for schools in 1998. They are:

1.	Nursery education for 66% of 3 year olds	L
2.	No children aged 5-7 in classes of more than 30 pupils	P
3.	80% of 11 year olds reaching the expected standard for their age in literacy	P
4.	75% of 11 year olds reaching the expected standard for their age in numeracy	P
5.	Reducing the annual rate of unauthorised absence to 0.5% of half days missed	PS
6.	Less than 8,400 children a year permanently excluded from school [1]	L
7.	50% of 16 year olds getting five higher grade GCSEs	S
8.	95% of 16 year olds getting at least one GCSE	S

It is recommended that the reporting system also includes:

9.	A target for attainment at age 18 [2]	S
10.	A measure of relative value for money – that is to say, a measure of what is being achieved per pound spent per pupil in each school	PS

Notes:
P   Primary school target
S   Secondary school target
L   LEA target

[1] *This national target for exclusions is not applied at school level because of the small numbers involved at individual school level and hence the unpredictable variation year on year. However, the formula for calculating the school's percentage pupil performance should take into account any pupils that may have been permanently excluded from the school during the year, to ensure a school's statistics do not benefit when a child is excluded.*

[2] *To ensure comparability, the same target should be applied to schools, sixth-form colleges and further education colleges. A target for A-levels (or equivalent qualifications) is likely to be the most appropriate measure of attainment as these are the main qualification aims of 16 to 18 year olds across the range of post-16 education providers. (Appendix 5 shows the proportion of 16 to 18 year olds in education by qualification aim and education provider.)*

Cross-segmentation

There are many different ways primary and secondary schools could be classified so that meaningful comparisons can be made. Currently the DfEE's *Autumn Package* benchmarks schools according to the proportion of pupils eligible for free school meals. The Audit Commission's new *Schools Financial Comparisons* website groups schools using a range of factors such as size, type, percentage of pupils with special needs, free meal entitlement and English as an additional language.

Our view is that it is important to settle on two key external factors that influence an individual school's potential, so as to enable clear and consistent segmentation. For instance, if the background environment that influences a school's potential is driven by the social setting, this can be "measured" using readily available data viz: (i) whether the school is inner city, suburban or rural and (ii) standard of living demographics, which can be approximated by using the percentage of children who qualify for free school meals (as this is objectively means tested). This analysis would break down the schools population into, say, nine reasonably homogenous (and therefore comparable) groupings for primary schools and nine groupings for secondary schools. The above example would produce the following matrix:

	Percentage of children receiving free school meals		
	Over x%	Between x% and y%	Less than y%
Inner city			
Suburban			
Rural			

Table (1) Example of cross-segmentation of schools

Please note that whilst existing evidence strongly suggests that free school meals is a relevant proxy for a key factor, these classifications are illustrative only. For example, the percentage of pupils for whom English is a second language may be a more appropriate factor than population density or it may be more appropriate to use data on overcrowded households or population mobility, or an analysis of postcodes of actual pupils on the roll. The important thing is to agree on two factors and to apply the segmentation consistently. Striving for absolute perfection in the selection of the initial two factors is less important than making a start at cross-segmenting the schools population and then experimenting with different ways of cross-segmenting to see what patterns of good practice emerge from the examination of the results within each segment.

Reporting

Each school should then annually report to the DfEE and their LEA the relevant statistics. Based on the Government's current targets, for primary schools this would be:

Target no.

2. The number of children aged 5-7 in classes of more than 30 pupils

3. The percentage of 11 year olds reaching the expected standard for their age in literacy

4. The percentage of 11 year olds reaching the expected standard for their age in numeracy

5. The percentage of half days missed due to unauthorised absence

and a measure of value for money, such as:

> 10. The average of the percentages in 3 and 4, divided by the average annual running cost of the school per pupil giving a "value for money index" of improvement/deterioration per pound per head paid.[1]

[1] *There are currently no input values at age 5 and this index therefore assumes equality of ability at age 5. If robust input values at age 5 become available, this formula should be adjusted to allow for them. This adjustment would improve the accuracy of the value for money index and provide an important output indicator for pre-primary education.*

For secondary schools this would be:

> **Target no.**
>
> 5. The percentage of half days missed due to unauthorised absence
>
> 7. The percentage of 16 year olds getting five higher grade GCSEs
>
> 8. The percentage of 16 year olds getting at least one GCSE

any statistics relevant to other national targets that might be set, such as:

> 9. The percentage of 18 year olds getting at least [x] 'A' Levels (or other appropriate attainment target for 18 year olds)

and a measure of value for money such as:

> 10a. The percentage in 7 above less the (11 year old) intakes average literacy percentage (as supplied by their primary school) divided by the average annual running cost of the school per pupil giving a "value for money index" from 11 to 16
>
> b. The percentage in 9 above less the percentage in 7 above divided by the average annual running cost of the school per pupil giving a "value for money index" from 16 to 18

With this information collected electronically, you have a powerful management tool that is geared towards achieving the Government's explicit education targets. You can "drill down" from the national totals to each LEA, to each homogenous peer group of schools (as cross-segmented e.g. primary, rural, low percentage of free school meals) and to each individual school.

Management opportunities

These measures on their own will not raise standards but transparent performance reporting against key targets and appropriate benchmarking to compare like with like can enable good management practice that should raise standards.

The promotion of responsible and accountable management is key. Some progress has already been made here with the publication of national performance tables but these don't relate to homogenous groups of schools or reflect costs. Robust measures should be developed to allocate schools to broadly homogenous groups in which all the schools have a similar need to spend. This should be incorporated into an internet based information system so that each school has its own statistics and has access to the results of the other schools and the average for its own peer group.

Of the various measures that the Government is introducing to use performance information to help to raise standards, we believe that the key measures are:

■ **Prominent and clear local reporting of relative performance**

We recommend that each school should be mandatorily required to include their planned and actual performance against the six or seven key targets (described above) in all reports they are statutorily required to send to parents and governors. To make the information more accessible the report should be in graph form, showing the school's trend against that of its peer group and its planned improvement, covering at least two forecast years. An example of what the trend graphs in a secondary school report might look like is included as Appendix 4.

Wherever possible this should replace existing material mandatorily required in reports rather than being an addition. Schools will of course want to continue to report to parents other information that they know is of particular interest. The same performance information should be made available on the internet and through any other media, such as the school newsletter, that may help to increase its accessibility to parents. Headteachers should explain in these reports the key initiatives they are undertaking to improve performance. Clearly, direct local parent pressure would be focussed on schools that fell short of their targets and did not plan for improvement.

■ **Budgeting and forecasting**

At the start of the year the trend graphs in the report would include the school's plan (or "budget") for performance against the key targets. At the end of the first and/or second terms the headteacher would be able to revise his/her forecast for the year to take account of developments since the budget was set. This would give governors, the LEA and others the opportunity to react to information before the year has ended and would allow for issues to be dealt with as they arose. For this reason, we suggest reporting at the end of each term.

As well as the current forecast, the trend graphs in the report would continue to show the original budget and the forecast that was being superseded (if any). This would allow stakeholders to see whether forecasts were being increased or decreased during the year. Low aspirations would stimulate parental pressure and attract Government attention; failure to achieve forecast performance would likewise attract justifiable criticism; and appropriate ambition and effective performance would be applauded.

■ **Focused trouble-shooting**

Benchmarked performance information against key targets can help audits to be more focused on schools falling short on specific Government targets (relative to their peers), identifying the causal factors and enable improvement.

■ **Incentives/replacement of headteachers**

It will support and inform appropriate incentives of headteachers (bonuses etc.), promotions, demotions and replacements to ensure the most able personnel are in place.

■ **Spreading best practice**

Schools with excellent ratios can be invited to post, on intranet newsboards and on the DfEE's Standards website, their methods/tips about how to tackle the issues they have excelled in. The DfEE would be well placed to highlight and encourage the spread of best practice.

■ **Teaching best practice**

Case studies based on successful schools and specific skills learning for headteachers can be further developed, shared with others on the Standards website, and targeted for formal presentation to headteachers of schools with specific problems.

■ **Coaching and mentoring**

Building on the current practice of identifying Beacon Schools which then work in partnership with other schools to spread good practice, headteachers with proven excellence in a field can be allocated to mentor headteachers at schools with poor indicators in the same peer group. Such schemes should be strongly promoted with perhaps both headteachers being rewarded for material improvement.

■ **Assessing underlying performance drivers**

The measures will allow more transparent comparisons between successful and unsuccessful schools. Whilst it is appreciated that it is often very difficult to isolate the features that drive performance, the value for money indicator would highlight those schools which are performing well with less resource and thereby help to identify effective performance drivers. In turn, the cost of those features can be assessed and a cost/benefit analysis made prior to funding investments so that the value added in terms of quantified outputs per pound spent can be assessed and compared to alternative investments.

■ **Post investment audits**

The impact of specific additional expenditure can be measured against the headteacher's projected improvements in performance. Again, it is appreciated that it is often very difficult to isolate the impact of specific additional expenditure – and it is important, of course, not to deter the sort of managed risk taking that can lead to innovative new approaches, provided that it is based on appropriate assessment.

FURTHER EDUCATION

Statement of principles

The proposals set out in this report are based on the following principles:

■ the elected Government should set the national education and training objectives and targets – as it has (please see Appendix 3)

■ individual colleges should be set targets which contribute to the attainment of national targets

■ colleges should transparently report against their targets

■ college principals should be held responsible for the college's performance and the efforts made to improve performance

■ processes and structures by which targets are achieved should be robust and flexible, give responsibility to college principals, allow for the sharing of good practice, and be supported by focused intervention.

The FE system as a whole should be forward-looking, flexible and open, so that it can adapt to changing circumstances, revising existing targets accordingly.

Management process

It is vital that information is meaningful and that good practice is shared across the sector. Some structures already exist for this to happen. Inspectorates can marshal evidence from their reports. Sector organisations, such as the Further Education Development Agency (FEDA) and the Association of Colleges (AoC), also play an important role. However, the sharing of good practice should be much more systematic if continuous improvement is to take place in all colleges. A small number of key performance measures should be used to identify successful colleges. These key measures should be used to determine the distribution of incentives to the sector.

Volumes of college data are available publicly but a few key performance measures on each college should be much more widely available, including through a greater use of the internet. A focused information management system should collect and present these measures for each college, enabling colleges to be monitored by all customers and stakeholders.

Cross-segmentation

Relevant information for each college requires both clearly defined performance indicators and an appropriate cluster of similar colleges within which comparisons can be made. This

requires colleges to be cross-segmented into groups, with reasonable similarity between the colleges in each segment, so that genuine comparisons can be made.

College data are already classified into three groups according to type of college: general FE, sixth form or specialist. It would make sense to retain this distinction, which will provide a measure as to whether, over time, the Learning and Skills Council (LSC) succeeds in eroding the sector differences. In addition, however, colleges around the country serve very different communities, with some colleges working to widen participation in a local area where learners are harder to help. Socio-economic indicators can be used to distinguish between the populations colleges draw from to make sure like colleges are compared with like. The precise indicators would need to be developed carefully, in consultation with the colleges. The following example illustrates the recommended approach by which each college could compare itself with comparable others.

	Percentage of students from deprived wards		
	Over x%	Between x% and y%	Less than y%
General FE College			
Sixth Form College			
Specialist FE College			

Table (2) Example of cross-segmentation of FE colleges

In each of these nine categories, colleges would be able to compare themselves against the key performance indicators. Measurement of these indicators by peer group category would lead to the production of meaningful benchmarks for individual colleges.

Targets

It is anticipated that the LSC will provide more coherence to the diverse post-16 sector. It should also co-ordinate learning across local providers to ensure targets are met. We recommend that local LSCs should be made responsible for the achievement of lifelong learning targets which contribute to the national targets.

But both targets, and their associated benchmarks, should also apply to those providers which make up the post-16 sector. FE colleges are a key part of this sector, responsible for the education and training of around a quarter of all young people and adults. We have taken as our remit, therefore, to interpret the Government's second strategic objective and identify the key performance measures for FE arising from this objective which would contribute directly towards national targets.

The second strategic objective of the Department for Education and Employment is: "Developing in everyone a commitment to Lifelong Learning, so as to enhance their lives, improve their employability in a changing labour market and create the skills that our economy and employers need". DfEE has set itself six targets to be reached by 2002 in order to achieve its objective:

- 85% of 19 year olds qualified to level 2 or above

- 60% of 21 year olds qualified to level 3 or above

- 50% of adults qualified to level 3 or above

- to reduce non-learners by 7%

- 28% of adults qualified to level 4 or above

- 45% of organisations with 50 or more employees, and 10,000 organisations with 10-49 employees recognised as Investors in People.

FE contributes towards these targets, but is not solely responsible for their attainment. Colleges therefore need targets which measure what they do in a way which reflects the national Lifelong Learning targets above. There are five key measures that we propose for colleges:

- social inclusiveness

- participation rate

- student achievement rate by both level 2 and level 3 qualifications

- value for money

- employability.

Social inclusiveness would be a ratio of the proportion of a college's students from socio-economically deprived areas, divided by the proportion of college's catchment area population from those areas.

Participation rate would be a measure of the number of students in the college divided by the population in the catchment area. Social inclusiveness and Participation rate would together measure the degree of access to the college's programmes amongst the local community and contribute directly to the national target to reduce numbers of non-learners.

Student achievement rate would measure, for both levels 2 and 3 equivalent qualifications independently, the number of those students who successfully obtained their qualification aim divided by the number of students who started in the college. It would directly contribute to the level 2 and level 3 national targets.

Value for money would measure the overall achievement rate for the college divided by the college's relative average level of funding. This index would provide clear information on good performance in colleges.

Employability would measure the local unemployment rate divided by the proportion of students who, six months after leaving the college, were still without work. This would provide information as to the college's contribution to the DfEE's third objective of helping people into work.

With this information collected electronically, a powerful management tool would be created which would be geared directly at achieving the Government's targets. This could then be used to 'drill down' from the national totals to each of the nine groupings of colleges and then to the individual colleges themselves.

Further observations on these measures are included in Appendix 6.

Management opportunities

Again, these measures on their own will not raise standards unless supported by good management practice. The creation of the Learning and Skills Council and the associated reform of the post-16 sector gives an opportunity to consider how best to use performance information to help to raise standards. As in the schools sector, promoting responsible and accountable management is key. Ways in which this can be achieved include:

■ **Prominent and clear local reporting of relative performance**

The publication and publicising of the key indicators will ensure that college principals are accountable to their stakeholders. Poor indicators will put pressure on principals to explain their performance and to improve. Good indicators will show where best practice is located so that others can learn from it.

■ **Focused trouble-shooting**

The measures would help identify poor performing colleges. Focused inspections and audits of those colleges should identify specific problems and enable improvement.

■ **Incentives**

Top performing principals and their colleges are currently publicised with a label such as 'Beacon' and a financial reward from the FE Standards Fund. The proposed performance reporting system should be applied for determining for future incentive awards (please see Appendix 2, para 7).

■ **Spreading best practice**

'Umbrella' organisations such as FEDA and the AoC share a mission to identify and spread the best practice of top performing principals and their colleges. Consistent information on colleges across England will be a valuable help in this.

■ **Teaching best practice**

As above. Best practice case studies should be developed and shared with others over the internet as well as in more formal settings.

■ **Coaching and mentoring**

Schemes to encourage coaching and mentoring between top performers and those with average or poor indicators should be strongly promoted.

■ **Assessing underlying performance drivers**

The measures will allow more transparent comparisons between successful and unsuccessful colleges. The value for money indicator would also highlight those colleges which are performing well with less resource and the effective performance drivers thereby identified.

REDUCING ADMINISTRATION

Reducing administration and improved efficiency in data collection and communication will provide more time for both teaching and managing.

To reduce the administrative burden on teachers and other staff in schools, and to improve the accuracy and speed of data collection, the DfEE has set up a project to develop an information strategy for schools and to pilot the use of information and communications technology to streamline data collection. This report supports the goals of that project and recommends that information sent to schools and colleges be sent electronically over the internet. Reference material relating to the law and other rules should be maintained centrally and accessed electronically as needed. This should reduce administration in schools.

Information sent by schools to the DfEE and LEAs should be transmitted electronically in standard form over the internet to reduce administration and enable efficient aggregation and analysis.

Schools should be encouraged to migrate from handwritten reports to parents towards a standard printed report that can be stored electronically. This will increase efficiency and enable a pupil's performance trend over time to be monitored and reported. A sub-project will be needed to design the architecture for this.

A programme should be introduced to justify the collection of data that does not relate to the adopted targets or to targets to do with good citizenship (please see Appendix 1). The working assumption should be that any data that is not:

■ related directly to adopted targets, or

■ related directly to good citizenship, or

■ related to financial reporting and control

should be terminated immediately, to reduce the burden on headteachers.

CONCLUSIONS AND RECOMMENDATIONS

Once relevant information is measured against relevant benchmarks, a range of management techniques can be employed and endless opportunities for improvement can be identified.

To establish a situation in schools where such dynamic improvement is the national norm and, as is required with such an extensive operation, is driven from the grass roots up, it is important to:

1. Focus attention only on things that matter, i.e. the elected Government's targets. This means reducing the collection of data in other areas and also ensuring that the Government's targets cover all high priority objectives

2. Measure performance against Government targets

3. Ensure schools widely publicise and report the facts to parents, the DfEE and other stakeholders

4. Ensure information is comparable, accessible and easy to understand

5. Hold each headteacher responsible for their school's performance

6. Improve poor performance by reference to credible, proven, benchmarks

7. Spread best practice by reference to proven excellent performers

8. Encourage each headteacher to plan/budget for improvement in the things that matter

9. Allocate discretionary resource in ways that provide the best value for money

10. Build on existing policies to create more positive and negative incentives to establish and reinforce a culture of focussing on and improving those things that matter.

In the area of further education we would recommend that:

11. The Government's objectives be accurately interpreted for FE colleges. We propose five measures which should be adopted to achieve this

12. Colleges' performance against benchmark measures be widely published in a way which is clear to all FE stakeholders. We recommend that the internet be used as a key enabler for increasing the transparency of colleges' performance and for spreading good practice

13. The sector adopts a common measuring instrument in order to take advantage of the good practice which currently exists. We recommend that a working group immediately studies the feasibility of the adoption of a sector-wide excellence model

14. A common measuring instrument and the benchmark measures be used to facilitate a clearer definition of excellence for the sector. This definition should be used to set targets against which each college would be measured and top performers rewarded

15. Further study be made of other areas which could lead to improved performance, including the relationship between achievement and average level of funding in colleges, and the possibility of the rationalisation of qualifications.

To implement information systems for schools and colleges, specific project teams already exist or should be established to:

■ design and implement the necessary internet-based reporting system, including the input screens and output screens

■ determine and publish the lists of homogenous groups of schools and colleges, which will be used to derive relevant benchmarks

■ load up whatever historical data is available to provide trend data for the last three years from each school and college

■ manage external publication (on the internet) of historical data and the publication of current year data, including historical trends, on the internet and directly by schools and colleges to parents, governors, LEAs or LSC and the DfEE.

Appendix 1

Observations and other recommendations for schools

1. The Government targets are substantially complete in the schools area, but it is recommended that:

    ■ a target is set for attainment at age 18. A target for A-levels (or equivalent qualifications) is likely to be the most appropriate as these are the main qualification aims of 16 to 18 year olds in education

    and that the reporting system should include:

    ■ a measure of value for money in primary and secondary schools

    The first step is to measure current performance in all schools. Once current performance is known, realistic but challenging targets can be set.

2. Consider whether other output measures would be valuable to parents (and their children), society and the Government and might therefore be included in the new reporting system at some future date. In particular it may well be worthwhile including certain "non-academic" indicators, measured on a common basis across the country, such as destination information, truancy or the incidence of certain types of exclusion. Careful consideration would need to be given as to how indicators of this sort might be collected and how their relationship with other output measures might be analysed.

3. Consider what actions/improvements that are shown to work in colleges of further education might be applied to schools. This should be applied to existing activities as well as recommendations in this report (such as the possible development and adoption of a sector-wide excellence model).

4. The lack of correlation between the performance of schools and their average levels of funding should be investigated. Specifically, it would be surprising if there was no positive long-term correlation between headteachers pay and school performance.

5. The definition of success (Beacon School etc.) should be aligned with Government targets and, in particular, value for money.

6. Good citizenship is very difficult to measure and therefore to manage. Consideration needs to be given as to how pupils can be taught:

    ■ logical thought processes
    ■ personal responsibility, and
    ■ social responsibility.

Ideally, this "good citizenship" could then be measured when people leave secondary school and the performance of the school consequently managed. I am afraid the solution for achieving this is beyond this paper.

7. Other useful reports have already been submitted to Government on the implications of broadband communications via the internet on schools and education generally, in particular the reports in March 1997 by McKinsey & Company *(The Future of Information Technology in UK Schools)* and by the Independent Commission *(Information and Communications Technology in UK Schools)* chaired by Dennis Stevenson.

These reports look at the importance of Information and Communications Technology (ICT) in education today. The conclusions are that increased overt emphasis on ICT is imperative if British children are not to be disadvantaged and that broadband connectivity of schools is a pre-requisite. If implemented, this would make the cost of implementing an internet-based management system for schools relatively trivial as the technical system requirements for educational purposes far exceed the technical requirements of the management system proposed in this paper.

Much consideration is given to the underlying philosophical educational debate between "prescriptive teaching" to whole classes, and "child centred learning and self-discovery" on a one-on-one basis. Our view is that with the continual development of computing power and communication capacity, both sides of this debate can be accommodated with increased teaching productivity.

For example prescriptive teaching might arguably be more effective if there was greater consistency between schools than there is now in the timetable during which teaching and learning take place. At one end of the spectrum, it would be possible to introduce a national timetable. The Government should consider whether more could be done to ensure that children throughout the country received, via web-casting over the internet, tuition from the best teachers with the best visual aids perhaps for the first part of the lesson. This could then be complemented by interactive learning activities with the classroom teacher asking questions and explaining answers to individual questions as appropriate for the balance of the lesson. This would help to ensure common high standards of tuition (at virtually zero marginal cost) and provide more time for hard pressed teachers to do marking, correct earlier work, or do administrative work.

Child centred learning would be most effective with individual programmes designed to engage the child and encourage self-discovery. The advances in software have been dramatic over the last few years, and highly personalised, adaptive, interactive programmes are already available handling commercial enquiries. In our view, software can facilitate more child centred learning, increase teacher productivity and deliver a uniform higher standard of education.

The main point is that either or both methods of learning can be facilitated more effectively with all schools and all children "on-line" with broadband connections. The earlier reports in this area conclude that British children need more ICT in their education if they are not to be disadvantaged in a global market place. However, the efficiencies will only be gained if the prescriptive teaching and child centred learning is planned and

co-ordinated by Government. This is a major multi-year project and is beyond the scope of this review. However, the need for adequate broadband connectivity as a pre-requisite is unaffected by subsequent educational decisions and plans (concerning the extent and content of prescriptive teaching and the extent and content of child centred learning), rendering the marginal cost of this paper's proposals trivial (please see above).

Note: In our opinion, "adequate broadband connectivity" equates to a minimum of 2 megabits per second (i.e. the equivalent of one video stream) per year group. This implies a minimum requirement of 14 megabits per second per school. This service should be symmetrical to enable fully interactive communication as services continue to develop over the coming years. Failure to provide adequate Broadband connectivity would severely limit the usefulness of the system and would prove an expensive false economy. Additionally, the selection of technology is critical as some technologies in this area do not facilitate further development whilst others are "future proof", i.e. in addition to providing 14 megabits per second the technology needs to enable considerable expansion at only marginal future cost. When the pilot schemes in this area are over, a technological solution must be selected which enables the future education strategy – otherwise the education strategy will be frustrated either nationally or locally as some schools or LEAs opt for inappropriate technology.
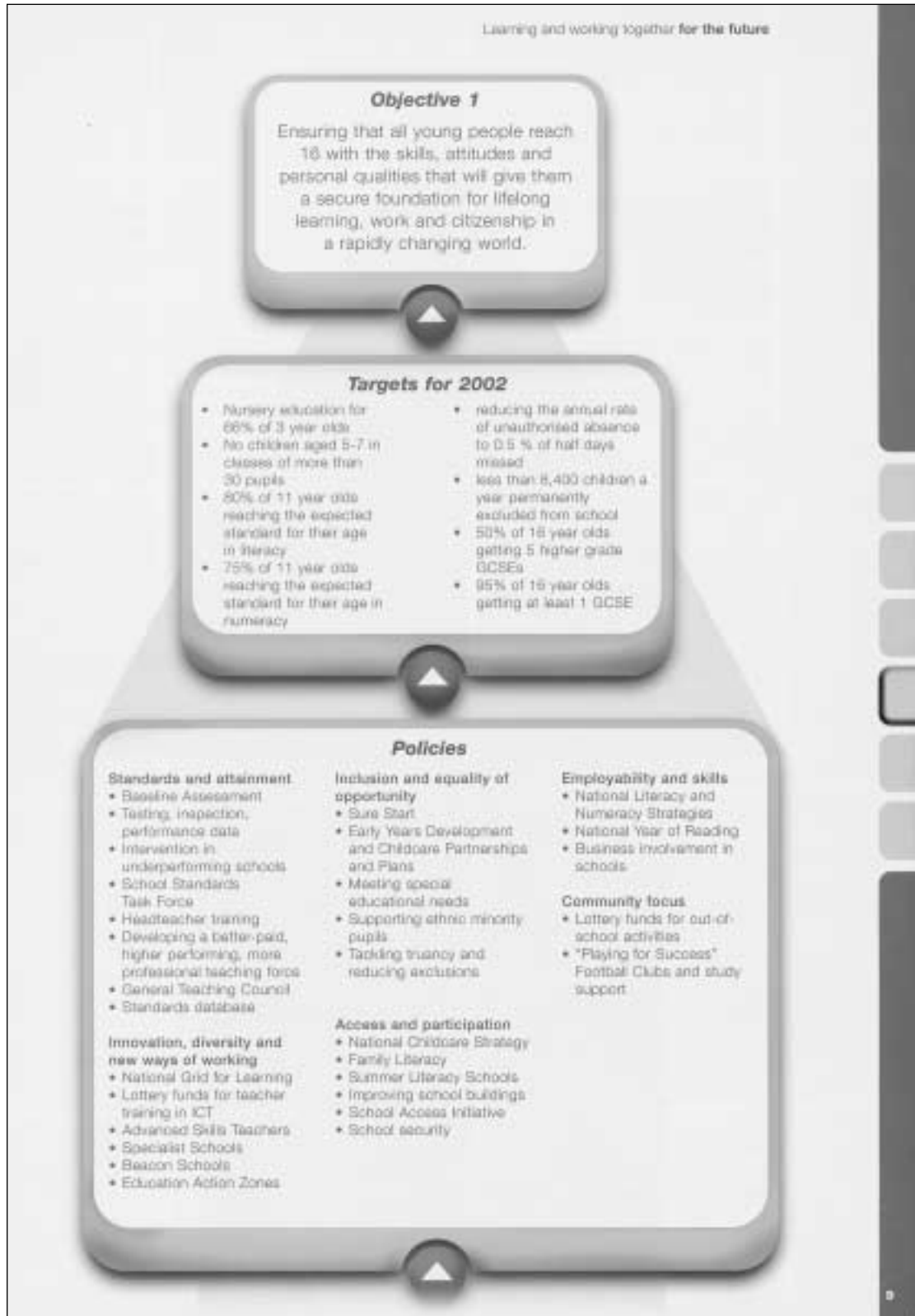
Appendix 2

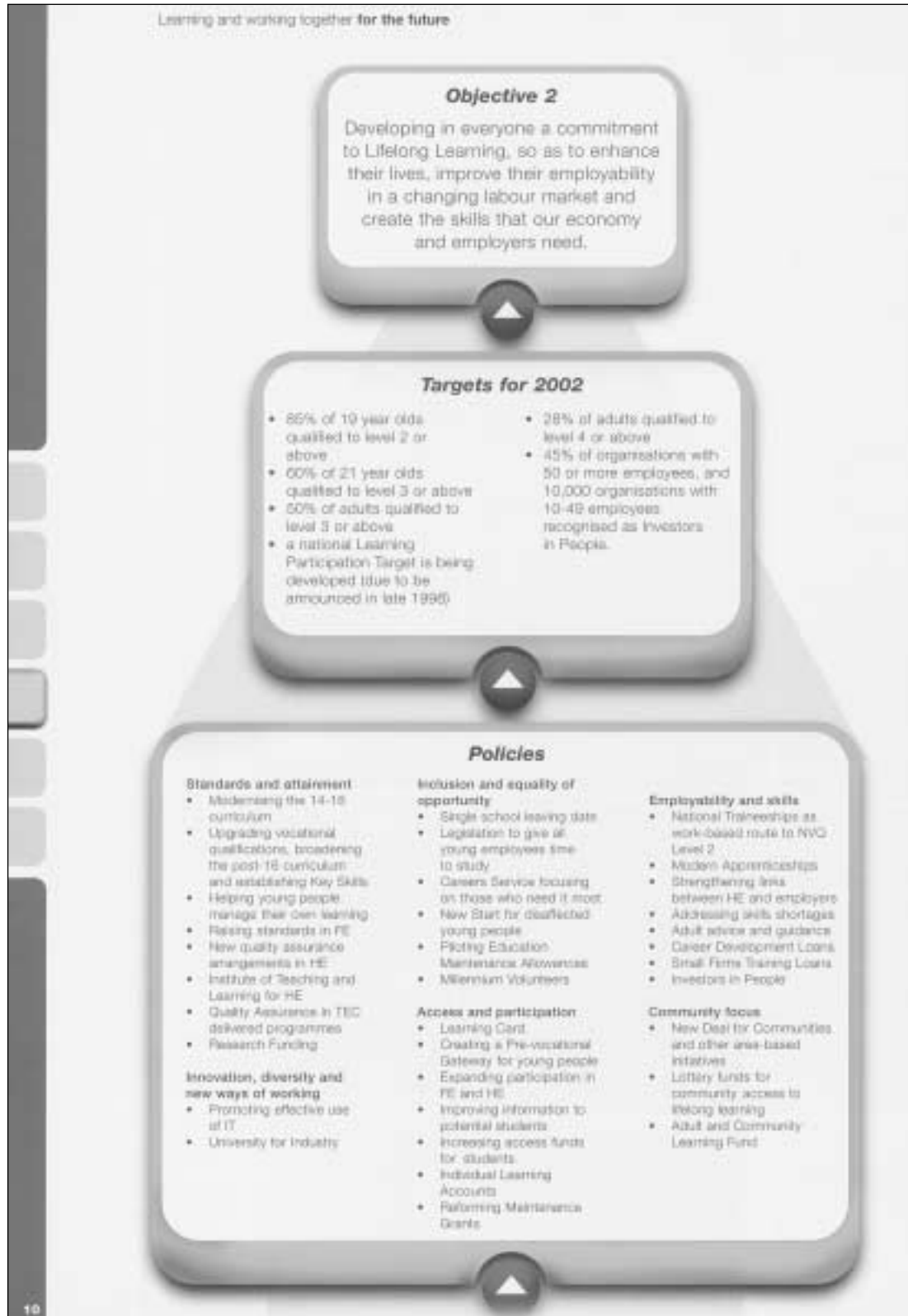## Observations and other recommendations for Further Education

1. The five key measures can do much to identify colleges performing well. They should not be isolated measures but levers to enable improvement throughout an organisation. There would be real gains not only from the adoption of these measures but also from the application of a single and consistent measuring process across all FE. The EFQM Excellence model has been applied with considerable success in various sectors, including some FE colleges. We strongly recommend that a working group, to include representatives from colleges which have applied an excellence model, should be established immediately to examine how this should be taken forward.

2. Some benchmarking has already taken place across FE, both by the FE inspectorate and by independent consultants such as Ben Johnson-Hill. This work should be actively explored to ensure that the recommendations of this report, if implemented, can build on the best of current understanding and best practice.

3. It is currently unclear who sets the learning agenda for the post-16 sector. This is partly a result of the lack of coherence in current arrangements. The new Learning and Skills Council should help bring greater coherence to the sector but we recommend in addition that the LSC should be responsible and accountable for defining the learning requirements at local level and articulating clearly what those learning needs are and who needs to provide them.

4. The Further Education Funding Council, as the body which funds the great majority of the provision in the sector, should have targets which align with those of the colleges themselves. However, as new structures are soon to be in place, we recommend that when the new Learning and Skills Council is established, its targets should be identical to those of the DfEE's second strategic objective for lifelong learning.

5. There are currently thousands of qualifications which are provided by colleges for their students. This causes inefficiencies due to the duplication of qualifications and can lead to confusion for both students and prospective employers. There should be some rationalisation of qualifications by the examining boards. The work of the DfEE and the Qualification and Curriculum Authority is welcomed and should be expedited.

6. Because of the previous funding structure of colleges, wide variations in funding per student exist which are difficult to link to performance. This seems to be a fruitful area for further investigation.

7. If the measures accurately reflect the Government's objectives, those colleges which perform well against all of them will be the real beacons of the sector. We therefore recommend that the Government tightens its current definition of Beacon Colleges to take account of the key measures proposed in this report, and that only those colleges which perform well against all five measures, are recognised publicly for their achievement.

Appendix 3

Government objectives, targets and policies

Learning and working together **for the future**

Objective 1

Ensuring that all young people reach
16 with the skills, attitudes and
personal qualities that will give them
a secure foundation for lifelong
learning, work and citizenship in
a rapidly changing world.

Targets for 2002

- Nursery education for
  66% of 3 year olds
- No children aged 5-7 in
  classes of more than
  30 pupils
- 80% of 11 year olds
  reaching the expected
  standard for their age
  in literacy
- 75% of 11 year olds
  reaching the expected
  standard for their age in
  numeracy

- reducing the annual rate
  of unauthorised absence
  to 0.5 % of half days
  missed
- less than 8,400 children a
  year permanently
  excluded from school
- 50% of 16 year olds
  getting 5 higher grade
  GCSEs
- 95% of 16 year olds
  getting at least 1 GCSE

Policies

Standards and attainment
- Baseline Assessment
- Testing, inspection,
  performance data
- Intervention in
  underperforming schools
- School Standards
  Task Force
- Headteacher training
- Developing a better-paid,
  higher performing, more
  professional teaching force
- General Teaching Council
- Standards database

**Innovation, diversity and
new ways of working**
- National Grid for Learning
- Lottery funds for teacher
  training in ICT
- Advanced Skills Teachers
- Specialist Schools
- Beacon Schools
- Education Action Zones

**Inclusion and equality of
opportunity**
- Sure Start
- Early Years Development
  and Childcare Partnerships
  and Plans
- Meeting special
  educational needs
- Supporting ethnic minority
  pupils
- Tackling truancy and
  reducing exclusions

Access and participation
- National Childcare Strategy
- Family Literacy
- Summer Literacy Schools
- Improving school buildings
- School Access Initiative
- School security

Employability and skills
- National Literacy and
  Numeracy Strategies
- National Year of Reading
- Business involvement in
  schools

Community focus
- Lottery funds for out-of-
  school activities
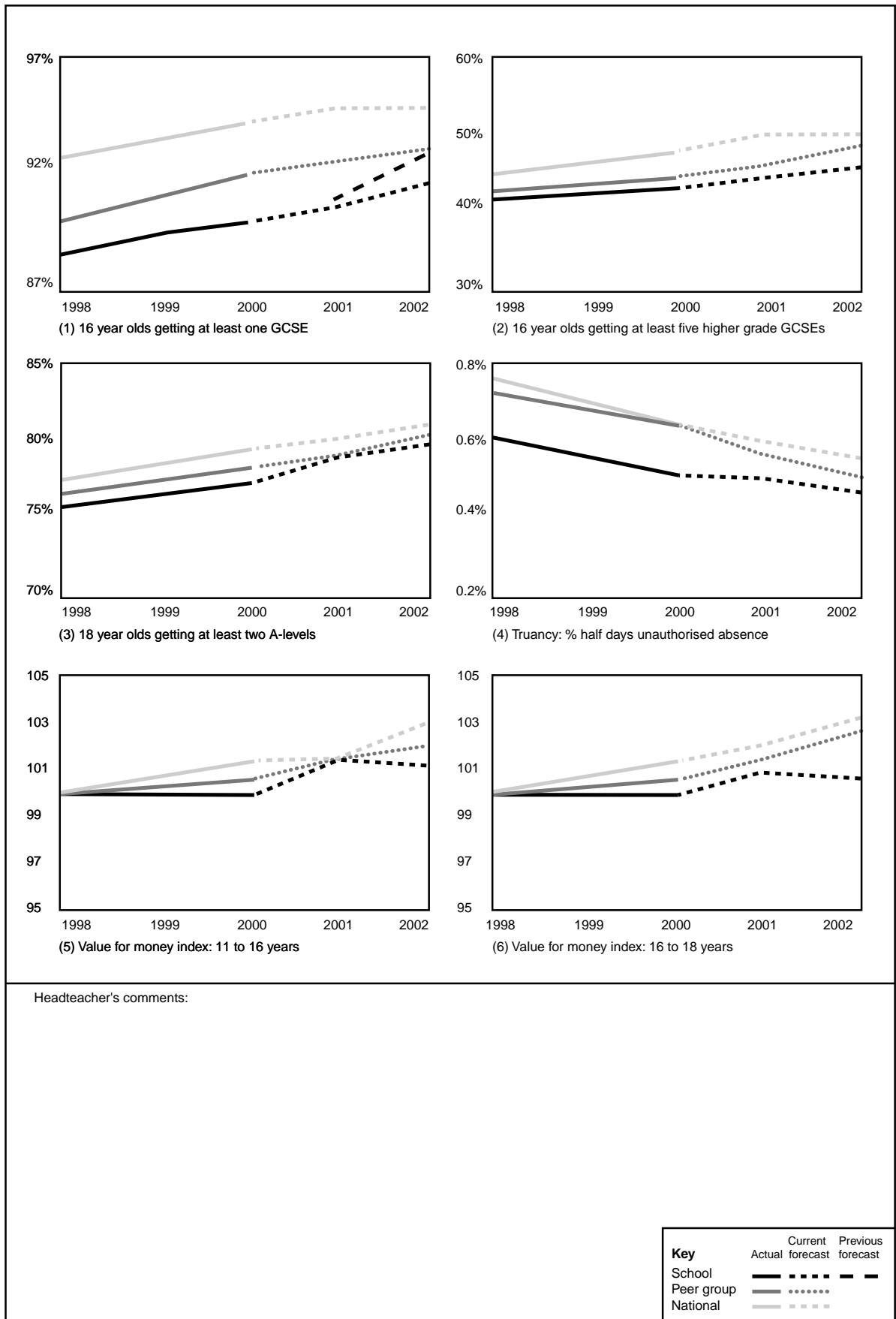- "Playing for Success"
  Football Clubs and study
  support

Source: *Learning and working together for the future: a strategic framework to 2002,* DfEE November 1998

Note: A national Learning Participation target for 2002 of 7% reduction in non-learners was announced in early 1999.

Appendix 4

Example of secondary school trend graphs

(1) 16 year olds getting at least one GCSE
(y-axis: 87% to 97%; x-axis: 1998 to 2002)

(2) 16 year olds getting at least five higher grade GCSEs
(y-axis: 30% to 60%; x-axis: 1998 to 2002)

(3) 18 year olds getting at least two A-levels
(y-axis: 70% to 85%; x-axis: 1998 to 2002)

(4) Truancy: % half days unauthorised absence
(y-axis: 0.2% to 0.8%; x-axis: 1998 to 2002)

(5) Value for money index: 11 to 16 years
(y-axis: 95 to 105; x-axis: 1998 to 2002)

(6) Value for money index: 16 to 18 years
(y-axis: 95 to 105; x-axis: 1998 to 2002)

Headteacher's comments:

Key	Actual	Current forecast	Previous forecast
School			
Peer group			
National			

Note: This illustrates possible format only. It not does not represent actual achievement or forecasts.

Appendix 5

Young people in education in England

Percentage of 16-18 year olds in education, by institution and qualification aim, 1998/99

	Maintained school	Independent school	Sixth form college	Other FE colleges	HE institutions	Total (%)
A level/AS courses	12.8	3.8	4.5	3.8	–	**24.9**
Advanced GNVQ	1.9	0.1	0.7	3.5	–	**6.2**
NVQ 3 and other equivalents	0.1	0.0	0.2	4.9	0.1	**5.3**
GCSE	0.3	0.2	0.2	0.7	–	**1.4**
GNVQ foundation and intermediate	1.5	0.0	0.4	2.2	–	**4.1**
NVQ 1 2 and other courses	0.2	0.2	0.1	5.3	0.4	**5.8**
Higher education	–	–	–	0.3	6.5	**6.8**
Total (%)	**16.7**	**4.3**	**6.1**	**20.6**	**6.9**	**54.5**

Source: *DfEE SFR 13/1999 Participation in education and training by 16-18 year olds in England: 1988 to 1998*

Appendix 6

Notes on Further Education performance measures

- **Social inclusiveness**

  Data are currently available on student postcodes. Deprived areas are known and used to calculate the FEFC's widening participation factor. Work would need to be done to define a college's catchment area. If the college's students exactly represented the catchment area population, this measure would be 1. If the college was recruiting relatively more students from deprived areas and thus promoting social inclusion, this measure would be greater than 1.

- **Participation rate**

  With the catchment area of a college defined, data are readily available for this measure.

- **Student achievement rate**

  All data necessary for this measure can be derived from existing sets, although existing retention and achievement rates are not directly compatible and further work would have to be done to disaggregate the measures by qualification level.
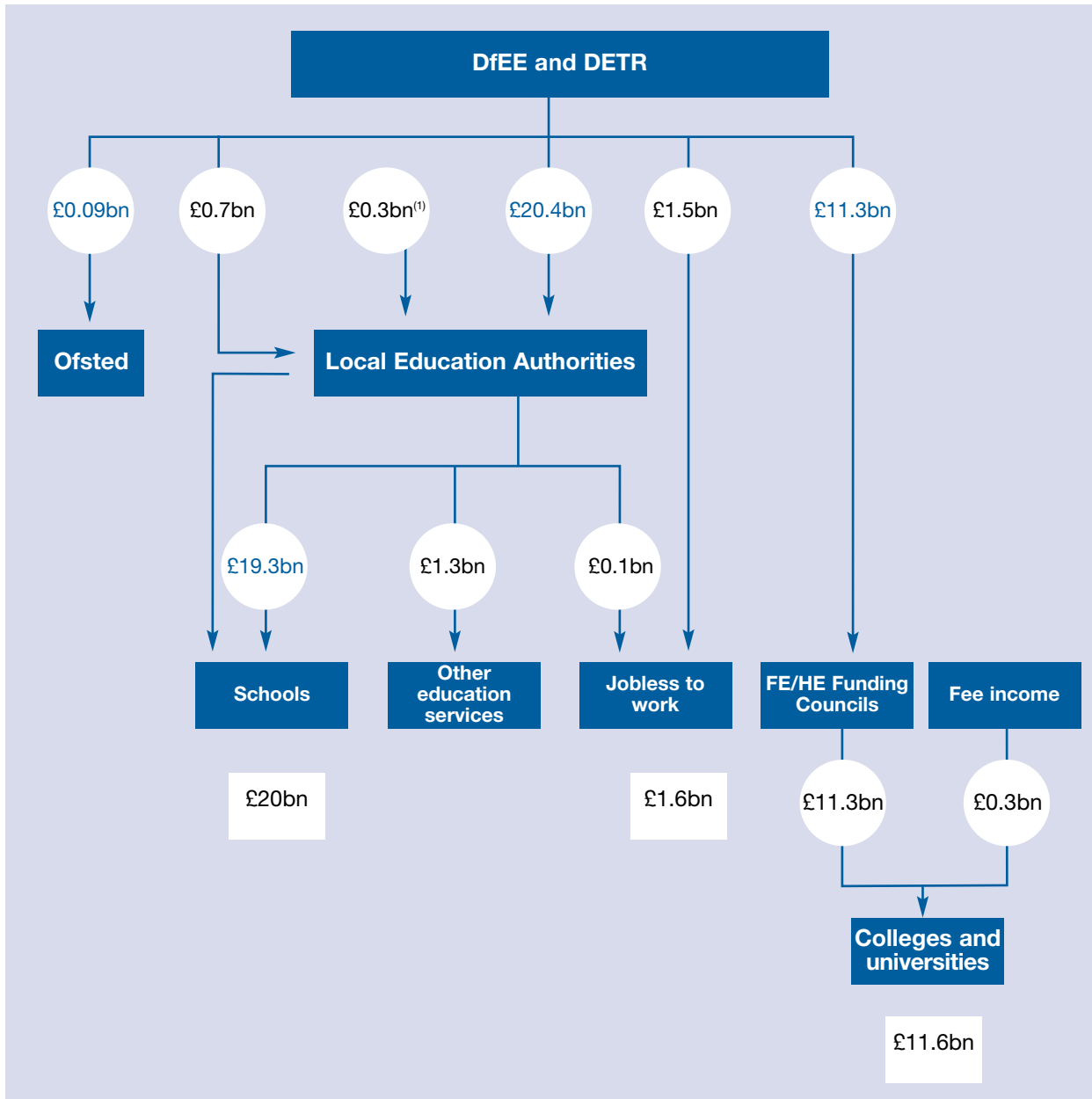
- **Value for money**

  This would measure the overall achievement rate for the college (i.e. not disaggregated by level) divided by the ratio of the college's average level of funding (ALF) to the mean average level of funding for the FE sector as a whole (i.e. achievement / (college ALF / sector ALF)). So a college's achievement rate might be 80%; its average level of funding £18.70 per unit; and the sector average £17.00 per unit. Its ALF ratio would be 1.1 and its value for money index therefore (0.8/1.1) = 0.72. Another college with the same achievement rate, but an average level of funding of only £15.30 would have an ALF ratio of 0.9 and therefore a value for money index of 0.88. All these data are available, subject to the provisos above concerning the achievement rate.

- **Employability**

  Local unemployment levels are readily determined. To arrive at the figure for the college's students, it would be necessary to have better quality destinations data than currently exists. Successful outcomes would be regarded as progression onto higher level further education, into higher education or into employment. Colleges would need to work to improve the quality of this data before this indicator could be robust. But, if implemented, an index over 1 would mean that more of the college's leavers were finding jobs than could be said for the local population.

Appendix 7

Funding for education


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                          DfEE and DETR

  £0.09bn   £0.7bn   £0.3bn(1)   £20.4bn   £1.5bn   £11.3bn

  Ofsted           Local Education Authorities

                £19.3bn    £1.3bn    £0.1bn

   Schools      Other         Jobless    FE/HE Funding   Fee income
                education      to         Councils
                services       work

   £20bn                      £1.6bn     £11.3bn         £0.3bn

                                         Colleges and
                                         universities

                                         £11.6bn
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(1) Income from council tax above Standard Spending Assessment

Source: DfEE, based on expenditure in 1999/2000

As part of its comprehensive plan for modernisation, the Government has brought together a small team of business and public sector leaders to provide a new perspective on some of the difficult issues that public services face in their drive to improve performance. Each member of the Public Services Productivity Panel is focusing on a different area of government, working with individual departments and agencies to identify solutions that will increase productivity.

This report by John Mayo, Finance Director of Marconi plc, focuses on education and in particular on how performance is measured and reported in such an extensive and diverse sector. Building on the substantial progress that has been made by the Department for Education and Employment to increase the availability of information about how individual schools are performing, his report makes recommendations for a streamlined, internet-enabled, reporting system to help to raise performance to the standards of the best.