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ABSTRACT

In response to a shift from the management of curriculum to the management of scarce resources to deliver a changing curriculum, this paper brings together three "value for money" case studies in college administration. The papers identify three levels of activity, ranging from the one-time opportunity for good housekeeping through tactical maneuvers to strategic shifts which are planned and implemented over time. The first case study, "Informing College Thinking: Using Financial Analysis" (Roger Crossley), shows how Hinckley College (England) has been examining its financial base and seeking comparative data from six similar institutions in order to identify relationships between services and costs. The second case study is "Technician Establishment Review" (Bob Kedney and Andy Lightbown, a report of a review of the technician establishment at Woolwich College (England). The review examined the overall numbers and the distribution of posts in the 1993/94 academic year against the background of history and the initiatives set out in the college strategic plan. The third case study, "Space Watching: The Real Time Count" (Trevor Daff), focuses on the costs associated with the buildings at Cambridge Regional College (England). The institution is undertaking a major capital project which radically restructures its facilities. The case studies illustrate ways in which the mantle of incorporation has enabled college managers to take greater responsibility for determining change. (JB)

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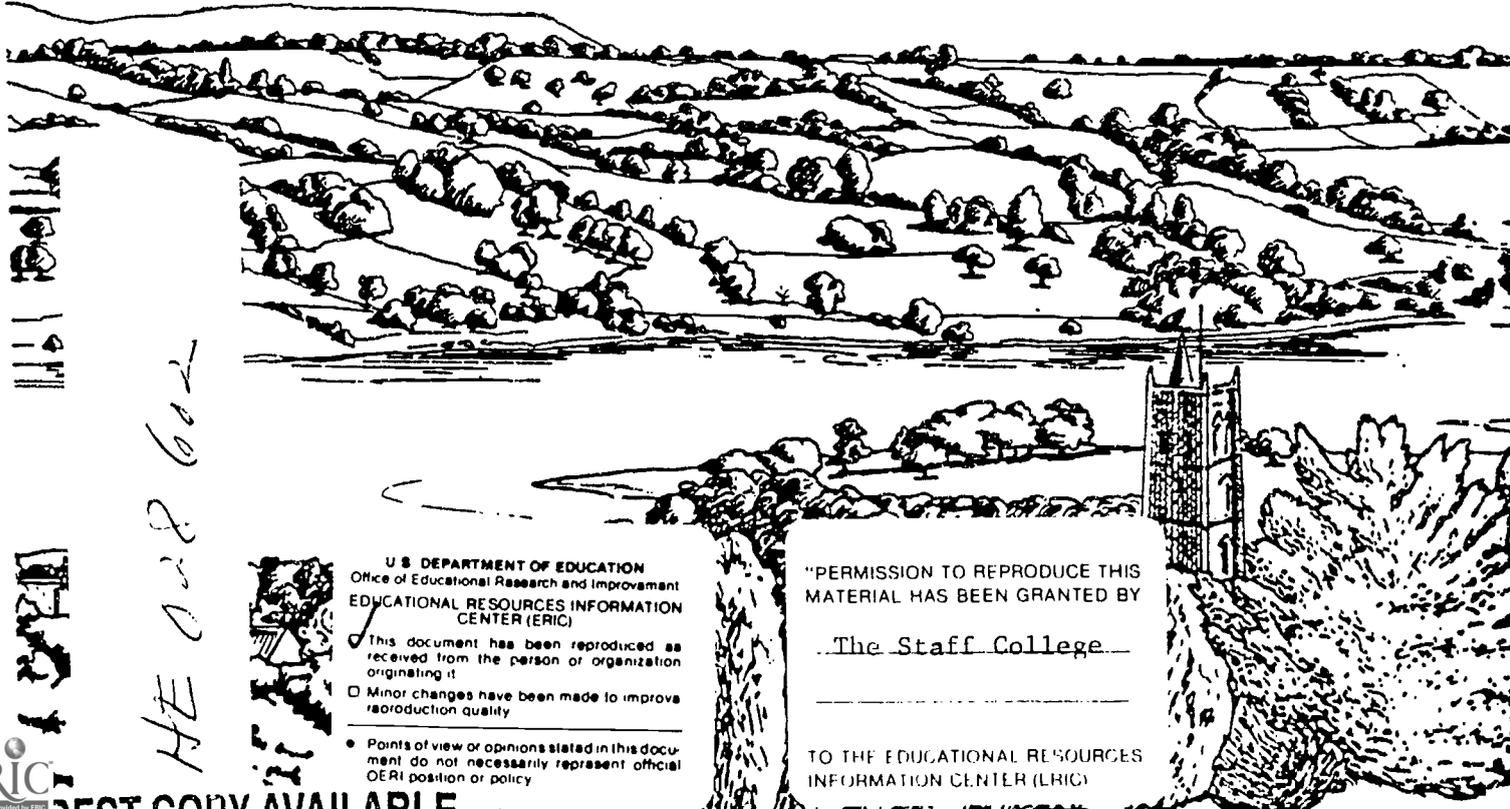
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Mendip Papers

Value for money case studies

Edited by Bob Kedney

MP 076



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Dr Bob Kedney, Associate Tutor, The Staff College

Has been the principal of one of the larger colleges of further and higher education, a senior officer and adviser to a number of local authorities and a head of department in a college and a secondary school. He has served on a number of national bodies, including the Joint Study of Efficiency and the Burnham/National Joint Council which dealt with salaries and conditions of service. He currently teaches at The Staff College and the ILO (Turin), is Education Adviser to Price Waterhouse, undertakes consultancy work, writes on aspects of post-compulsory education and is Research Director for the Colleges' Employers' Forum.

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Value for money case studies

edited by Bob Kedney

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Introduction

It is often claimed that colleges are unique; it is certainly true that they have responded differently over the years to the challenges they have had to face, particularly the need to make scarce resources stretch further. It is tempting to suggest that, for some at least, this has been but the prelude for what is now to come. In the past, the pressures have tended to be concerned primarily with meeting the demands for cuts which came in waves as part of the annual spending cycles of the local authorities. The future is somewhat more predictable – the need to pursue growth will be matched by a reducing unit of resource, a trend that will be both consistent and persistent. The relationships between what is to be spent and what it is to be spent on will become even more significant.

Financial analyses still point to wide differences within as well as between colleges in terms of their operational practices and their consequential spending levels. The tight-loose fit between the national sources of funding and the colleges as the spending agents has changed dramatically now that the local authority is no longer the intermediary. Protectionism, differing priorities for management and inertia which have in the past often mitigated against reductions in spending for local and political purposes, are no longer such strong factors. Change is very much part of life now and any review process, to be effective, has to lead to positive and coherent action. If it is to be consistent and persistent rather than a knee jerk reaction it has to be planned and sustained. There can be no better time for colleges to be implementing value

for money studies and when doing so, to learn from the experiences of others.

The radical shift of focus from the management of the curriculum to the management of scarce resources to deliver a changing curriculum is part of a wider cultural change within colleges. Yet there has been little analysis to date of the historical drivers underpinning the cultural values of the further education service. There is, however, a growing recognition that the shift to a national funding formula is proving to be a watershed. The interactions of an increase in student numbers with a shifting and declining unit of resource is both distinctive and different from what has gone before. Managers in colleges are having to learn new lessons and they contrast, often sharply, with the implicit messages from the past. No longer is success guided by maximising expenditure and minimising change. Looking for different ways of doing things by bidding for growth or redeploying resources rather than reduction will no longer suffice. Spending up in the financial year to support arguments of need and to defend the budget base are no longer the wisest course. Similarly, the locking up of spending as on-going commitments (most significantly by converting part-time staff into full-time posts, preferably with knock-on upgradings) is now seen as limiting flexibility and increasing costs.

In terms of the financial processes, the 1980s saw a shift from effective resource disposal (spending well), to a pursuit of economy or spending less. The perceived need now is for efficiency or spending wisely. Part of this change lies in the recognition that the focus of the budgeting exercise has had to shift from making the case for additional expenditure to the wider canvas of the full college balance sheet. The financial information system that kept detailed commitment records relating to equipment, stationery and furniture has had to become much more sophisticated. However, the one characteristic that has not changed is perhaps that big is still thought of as desirable if not beautiful.

This Mendip Paper brings together several case studies. It follows on from the Coombe Lodge Report *Cost reduction and value for money* (Kedney and Davies 1995), and the Mendip Paper *50 or more ways to reduce costs: analysis and selection* (Kedney and Davies 1993). The first

seeks to set out a rationale and a broad strategic approach to cost reduction, the second maps and lists opportunities across the recurrent spending of colleges. These case studies endeavour to use actual practice and experience in colleges to illustrate ways and means. They thus provide snapshots which are intended to:

- collect and share current activities in colleges;
- assist those who have already started their own assessments by providing ideas and points of comparison;
- map and disseminate effective, and sometimes less than effective, experiences;
- encourage and support good practice and the pursuit of value for money.

Analyses over a decade or more have consistently identified a wide range of costs over a diverse range of college activities. Further, it has not yet proved possible to identify a correlation between levels of cost and quality, thus lending support to the view that colleges may be expected to aspire to levels of existing 'best' (least costly?) practice. Moving from where the college finds itself to where it may wish to be, is unlikely to be simple or quick to achieve, rather it can be expected to require a variety of responses. This paper identifies three levels of activity, ranging from the one-off opportunity for good housekeeping, through tactical manoeuvres to strategic shifts which are planned and implemented over time.

The first level of management response is specific and concerned with the elimination of individual elements of waste that can occur in every complex organisation. They can be known by those closest who to date have had no opportunity or reason to pursue savings, yet remain unseen or seen but not recognised by those with the power to pursue change. They may be the outcome of changes that have not been picked up along the way or simply have grown incrementally from insignificant beginnings. Whatever their origin they tend to exist as isolated examples which can be trawled together and, with minor changes in operating practices and low cost monitoring procedures, produce significant dividends. In themselves the financial returns may be small but are gains at little or no cost. Of perhaps greater significance can be their

symbolic value in demonstrating a concern for cost reduction and the seeking of the involvement of all staff in taking ownership. The following illustrations are taken from feedback at Staff College conferences of recent examples of economies.

Examples of value for money savings

1. £20,000 per annum on inter-site travel by moving mileage rates to those used for income tax purposes, buying pool cars and scrutinising the need for journeys.
2. £720 per annum from cancelling a redundant telephone handset maintenance contract.
3. £13,000 per annum on caretaker overtime through use of time-off-in-lieu, needs analysis and changing shift working.
4. £1,200 by checking bank interest on college accounts.
5. £20,000 on VAT on fuel, and planning to move to a college power supply company.
6. £8,000 per annum on contract negotiation for services such as banking, audit and legal services.
7. 10 per cent saving on gas tariffs.
8. Placing a cap on art and design spending on student materials and opening a departmental shop.

The catalogue of such illustrations has been taken further and organised across the key areas of college spending in **50 or more ways to reduce costs** (Kedney and Davies 1993).

Not all savings are so specific or relatively simple, the case studies given here seek to give examples of college experiences in greater depth. They explore aspects of both process and outcome in that they describe how and why as well as what the college tackled. The first example is broad ranging as it explores the spending levels and patterns as a starting point for the formulation of questions. Hinckley College has been examining

its financial base and seeking comparative data in order to identify relationships between aspects of service and its costs. Internal and external comparisons have been developed as a key part of the exercise.

The second case study describes the review of the technician establishment at Woolwich College. It examined the overall numbers and the distribution of posts in the 1993/4 academic year against the background of history and the initiatives set out in the college strategic plan. The focus of the exercise was a clear alignment of the resource input with the current patterns of activity. Experience to that point had focused on individual posts in terms of need and grade levels. The college was looking for a broader view in terms of sound investment rather than economy. It thus examined the resource implications of the curriculum and developed a basis for forward planning.

The third case study in this short collection relates to the largest capital investment and the second largest block of recurrent commitments, the costs attached to the college's buildings. Cambridge Regional College is undertaking a major capital project which radically restructures its accommodation. One of the precursors to bidding has to be the collection of evidence of need which includes an analysis of current utilisation levels. Managing the process of change as facilities are decommissioned and new ones come on stream calls for levels of awareness and management action well beyond the norm. Real time studies of room occupancy go beyond simple data collection as they draw staff into the process of ownership of the findings and the management of the outcomes in ways not always so overtly achieved by other data collection exercises. The tasks involved in carrying out space utilisation surveys are well documented elsewhere. The focus here is on the objectives set by the college in terms of raising cost effectiveness and in relation to improving the quality of the built environment. Taking a real time count has brought the efficient and effective use of space as a value for money measure to the attention of staff across the college in a very practical way.

Case studies are clearly being developed many times over in many colleges as pressures on the resource base force managers to question past practice. They are illustrative of ways in which

the mantle of incorporation has enabled college managers to take greater responsibility for determining change. The following are not offered as models of best practice but rather as illustrations of theory being turned into action. The examples seek to cover a range of areas of college investment

and issues including aspects of the processes involved in seeking value for money that relate to the experience of line managers in corporate institutions. It is for the reader to judge how effective we have been.

Informing college thinking using financial analyses

Roger Crossley, Assistant Principal, Hinckley College of FE

It seems a very long time since managers thought more about the curriculum than they do about finance, or at least their senior colleagues seem to think they that they ought. Until recently worrying about the wherewithal was someone else's problem for we did not come into further education to be unqualified and often inadequate accountants. The financial estimates were a closed book, the only money to be managed was the departmental or sectional allocation for equipment and materials, and how it was allocated was usually a well kept secret. Now with formula funding and targets almost everyone is expected to take a keen interest but interpretation of accountancy-speak is akin to learning a foreign language. One way forwards in a search for illumination from financial information seems to lie in asking questions and looking for comparisons with others. Ratios sometimes provide unexpected insights, when they can be found.

In the good old days the principal compared what was given with what had been asked for at the start of the year, and middle managers compared their departmental allocation with what they had ordered as the year progressed. In some colleges the latter ratio was also tried at whole college level but the out-turn figures at the year end always seemed to come so late from the local authority that strange additions did not matter. It was not until quite recently, and particularly with the arrival of incorporation, that 'the bottom line' became a key ratio. Need-to-know is becoming part of the culture of the college, and the long lists of performance indicators are about to grow longer as key measures of financial health are to be put forward.

A number of comparisons and ratios were employed at Hinckley College in an attempt to explore the college's position, and to begin to gain a feel for the management of financial resources as well as staff and student time. One starting point

was to compare our distribution of costs at the planning stage of the estimates with those of other colleges. A small but nonetheless interesting sample was collected and the allocation to major areas of spending examined. An analysis of a sample of six institutions, which vary in size, is given in Figure 1.

The relationships between gross spend and FTE students and staff are illustrated (in Figures 2, 3, 4 and 5), as is the FTE students and floor area.

The overall sample is very small – only 10 colleges to date – nevertheless, it illustrates the difficulties encountered in seeking comparative data in FE. It is unclear how consistent colleges are in classifying elements of spending, for example whose costs are incorporated under the heading management staff. The range from 2.99 per cent to 6.79 per cent of gross spending is likely to owe more to the latter including middle managers than actual differences in resource deployment. The range from 29.75 per cent to 45 per cent on permanent lecturing staff is even more significant if it is a reasonable comparison as it goes far beyond earlier analyses of CIPFA estimates and Annual Monitoring Survey data through the 1980s. The catalogue could be continued but in raising such questions it signals success in relation to one of the objectives, which was to put the analysis and use of financial data on the agenda and get it discussed as a reasonable area of management debate.

Interrogation of the data as means of enquiry has an established position as the Audit Commission (*Obtaining better value from further education*, 1985) and the Joint Study of Efficiency (*Managing colleges efficiently*, DES/WO 1987) illustrated in the 1980s. Recently, consultancy firms have returned to this field, one basing its ratios on costs per 1,000 contact hours and another using a range of cash and staff levels in relation to specific

Figure 1: College enrolments, staffing levels and spending patterns

College	1	2	3	4	5	6
<i>Enrolments</i>						
gross FTE student	3670	2431	1446	3508	1457	702
full-time	2485	1840	735	-	882	622
part-time day	1701	473	501	-	312	316
part-time evenings	6400	118	210	-	263	102
other	-	-	0	-	-	-
<i>Staff</i>						
gross number	382	332	261	250	221	111
permanent teaching (FTE)	170	172	128	102	99	47
hourly-paid teaching (FTE)	77	70	12	60	62	27
support	135	90	120	88	60	37
<i>Accommodation</i>						
gross floor area (m ²)	26105	25332	31250	15039	11020	8200
number of sites	13	2	7	8	1	2
<i>Budgets</i>						
16 month (£'000)	18000	11709	8670	8585	7346	3879
annual income per FTE (£)	3678	3613	4497	1835	3781	4144
<i>% spent on:</i>						
permanent lecturers	29.75	45.35	37.87	31.74	43.48	36.98
hourly-paid lecturers	9.22	4.09	5.74	14.46	13.42	13.54
management staff	6.68	inc in clerical	6.79	2.99	3.44	2.00
clerical staff	5.39	15.97	7.95	8.71	7.65	5.05
technicians	4.43	4.54	7.06	3.01	4.60	7.17
learning services staff	0.91	1.64	0.96	1.71	1.43	0.96
premises staff	0.59	2.44	3.55	2.09	1.31	0.58
o/heads is not above	-	-	-	7.94	-	-
sub total	57.23	74.42	46.26	74.04	76.08	69.94
rates	0.34	0.54	0.50	0.56	0.33	0.47
rent	0.64	0.03	-	1.00	0.44	-
repairs and maintenance	8.29	1.36	2.01	1.90	1.77	1.65
insurance	0.71	1.45	0.85	0.82	0.44	0.80
cleaning	0.99	1.47	1.66	2.61	1.61	0.66
water & power	inc above	?	2.09	2.18	1.25	3.32
sub total	10.97	4.85	7.11	9.06	5.83	6.90
equipment	2.09	1.64	1.98	2.63	1.65	11.43
consumables	5.62	2.54	3.62	5.44	4.94	inc in equip
admin materials	2.29	inc consum.	0.44	3.25	4.19	3.08
exams	1.21	2.72	1.25	1.06	0.56	0.93
travel & hospitality	1.17	0.11	1.02	0.78	1.12	1.44
services	0.98	0.32	2.68	1.55	1.51	1.51
other	18.40	-	7.72	2.19	1.88	0.93
sub total	31.88	7.33	18.71	16.09	15.85	19.32
VAT	-	-	-	-	-	3.68
total (%)	99.99	100.00	102.08	100.00	97.75	99.84
spend on staff	10306	8714	6612	6356	5589	2713
gross FTEs x 4	14680	9723.2	5784	14032	5828	2808
gross FTEs x 7	25690	17015.6	10122	24556	10199	4914

Figure 2: Comparison of gross FTEs and 16 month budget

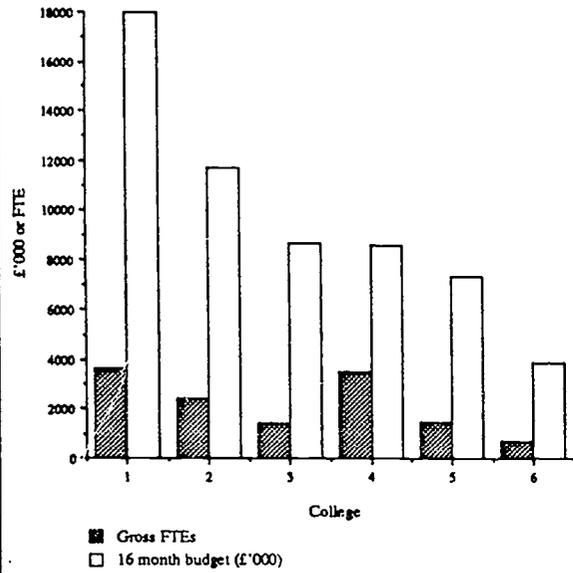


Figure 3: Comparison of gross floor area and gross FTEs x 7

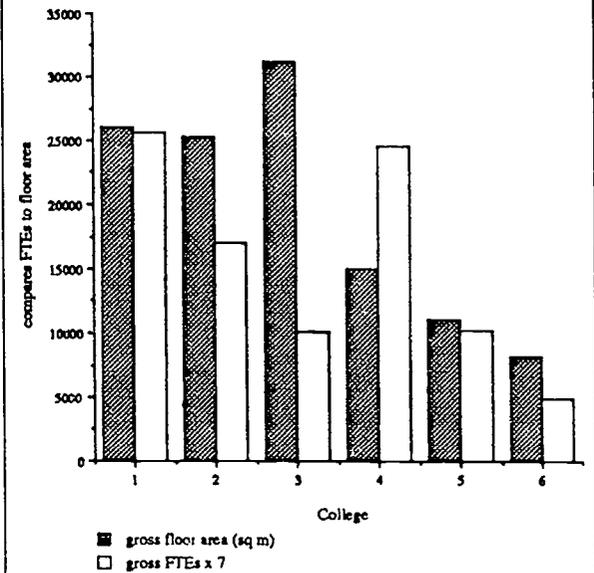


Figure 4: Comparison of 16 month budget and amount spent on staff

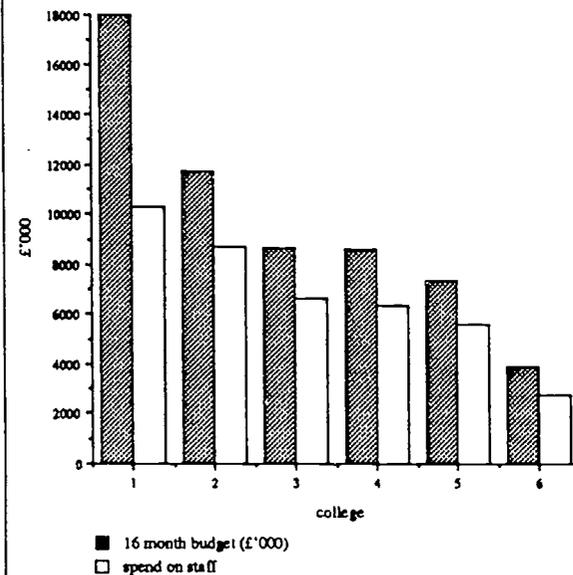
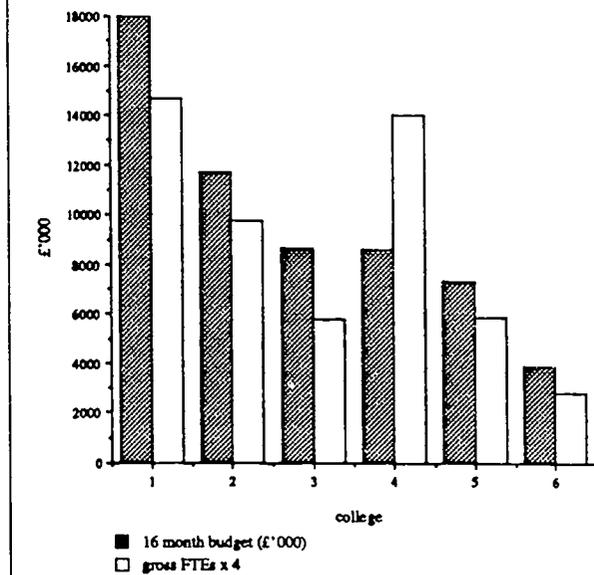


Figure 5: Comparison of 16 month budget and gross FTEs



services. Both use the technique, perhaps best known in FE from the Audit Commission, of comparing your college with the mean, the upper and lower ranges and a 'best practice' marker. Both charge a fee for having your data included in the sample and for the feedback that follows. In one case the local TEC (training and enterprise council) sees this as sound business practice and meets 50 per cent of the costs. Thus by using inter-college comparisons an establishment can compare its position with others in such terms as its caretaking costs per square metre, or its catering turnover per student per annum. The catalogue is lengthy and can throw shafts of illumination into corners of the college where concern for value for money may not have been first thought of. Finding that the staff costs for financial services was £59 when the 'best practice' guide figure is £33.35 in one of the studies is giving this college some food for thought.

A second line of investigation has been to use college data to compare one part of the institution with another, be it building by building or section by section. The energy and cleaning costs have been found to differ somewhat more than had been expected, and 30 per cent of caretaker input has been found to relate to only 10 per cent of the building stock. It is, however, in the exploration of the comparative costs of the management divisions that the impact is the greatest. Work is on-going in refining costs at course and teaching group level but already the focus of questions, and their relevance to good management, is becoming self-apparent in college.

Discovering that teaching staff costs per group hour varied across the six divisions of the college (after we had extracted data relating to the separately contracted, non-vocational programme) from £54.78 down to £27.07 in such a small

institution was striking. The instant responses were to give historical explanations of the college inheritance but they can no longer be allowed to rule future investment plans. For technician support the range was from £7.59 to £2.04 per taught hour and the immediate explanation was the curriculum mix. On further consideration this does not ring entirely true and may be worth testing further. For premises the range was from £9.77 to £4.11 and here there was a general feeling of reasonable fit with the space norms published by the Architects and Buildings Branch in the former DES Design Notes. What seemed probably not too bad at first sight becomes less so when it is remembered that the students spend only part of their time in college in timetabled spaces, and by no means all of that in specialist areas. In any event, the Further Education Funding Council (FEFC) has shifted the goal posts substantially and removed the space norms.

The recently published Design Note 50 (DFE 1994) for the latest DFE space norms and the college's 15 per cent growth projections for student enrolments have been used to assess the college position in terms of its accommodation. Taking the two together the college moves from a projected need for 9,927 square metres to 11,240 m² as Figure 6 shows.

However, this presupposes that the college will reach its growth targets and that the DFE space norms will stand the test of time; the FEFC guidance on estate management suggests that they will not. Nevertheless, the approach makes use of an external bench-mark and allows the need for 11,240 square metres to be compared with the existing building stock base of 13,500 square metres. The over-capacity of 20 per cent is being addressed by posing the following questions to each college building in turn.

Figure 6: Space needs: method A

	<i>Number of SFTEs</i>	<i>Space per SFTE</i>	=	<i>Space allocation</i>
	450	10 square metres	=	4500 square metres
	325	7 square metres	=	2275 square metres
	893	5 square metres	=	4465 square metres
total	1668			11240 square metres

Questions to be applied when managing the reduction of accommodation

1. What are the future requirements in college for spaces to support learning and to support learners?

What is the current balance between workshop and gymnasium space, classroom space and amenity space, and does it match the curriculum plan?

What changes are necessary?

2. Are our buildings suitable for the purposes outlined in the academic plan?

If not, what are the estimated costs of refurbishing each building for alternative purposes?

Which buildings are least suitable for our purposes? Which buildings would be most expensive to alter?

3. What are the conditions of the buildings?

What is the estimated costs of maintaining each building in good condition?

Which are the most expensive buildings to maintain?

4. How secure is income from activities currently having a space requirement, including income from FEFC, TEC, full cost programmes and the commissioning agreement? Which activities are most at risk?

5. What is the estimated remaining life of the buildings?

What is the estimated cost of extending the life of the main elements and sub-elements to match that of the building as a whole?

Which buildings have the shortest life?

Which require the most spent on them to extend their useful life?

6. Which buildings are well located?

What is the transport time and costs for students and staff transferring between buildings?

7. What are the running costs of each building per student hour?

Which buildings are the most expensive to run?

The answers in some case coalesce and point to an obvious route forwards, others require judgements about best advantage. The college already has a clear idea of which buildings should be closed to make maximum savings and is looking for ways to maximise productivity.

Turning to the overview given in Figure 7, it is clear from the analysis that the college has already begun to move on. The average cost per WFTE student of £2,841 has been broken down into component parts using a standard matrix of the college operating divisions and the major areas of spending with cost ratios worked back to costs per operating (timetabled) hour and cost per FTE student.

Figure 7: The college cost matrix

	Full year costs	Technology	IP	Des & text	B&M	SFP	Cont. ed.
Area of college buildings in sq metres	10000						
Area of rooms used by division in sq metres	6000						
Area of buildings used for teaching in sq metres	4000						
Area of buildings not used for teaching in sq m		2196	487	1651	300	921	310
Cost of lecturing staff	£1,934036						
Cost of technician staff	£258627						
Cost of all other staff (except lect, tech & prem off)	£368602						
Cost of premises (inc premises officers)	£336762						
Cost of consumables	£75000						
Total of all costs not included elsewhere	£761569						
Total budget derived from the above costs	£3,761596						
Proportion of tech support delivered in division d		29%	11%	16%	1%	5%	0%
Proportion of consumable materials used in division d		35%	6%	26%	11%	12%	10%
Class contact hours in divisions per annum	51073						
Hours of teaching in division d per annum		9390	7313	7397	8871	9752	8350
% of teaching in each division		18%	14%	14%	17%	19%	16%
Average hours of use of teaching rooms per annum	51929						
Hours of use of rooms per annum in division d		10246	7313	7397	8871	9752	8350
Number of FTE students in college	1130						
Number of FTE students in division d		180	130	140	230	250	200
Number of WFTE students in division d	1324						
Proportion of WFTE students in division d		22%	14%	17%	20%	22%	21%
Hours of teaching in division per annum	9390						
Teaching costs for division d	£1,970360						
Hourly teaching costs for division d		£406,855.60	£258,001.15	£405,189	£310,501	£263,942	£325,872
Teaching costs per FTE student		£43.33	£35.28	£54.78	£35.00	£27.07	£39.03
		£1614.51	£1653.85	£2067.29	£1350.00	£1055.77	£1357.80
Proportion of tech support delivered in division d		29%	11%	16%	1%	5%	0%
Divisional technician costs for division d		£52184	£19794	£28791	£1799	£8997	£0
Cross-college technician costs attributed to division d		£19110	£14883	£15054	£18054	£19847	£16993

The story continues with a growing range of questions about what we spend, how we spend it and how we might do things differently. Some questions are set at the macro level of the whole college, others focus on very specific matters such as reprographic costs per copy and the reprographic spend per student. The latter has helped us not only to become wiser but also to move from a centralised (somewhat out-dated service) to a decentralised service of card-operated photocopiers on competitive and monitored leasing and servicing agreements located where staff need them. The college refectory has been the subject of what, for a small college, has been a major investment to up-grade it and link it to teaching

and learning. The library and private study facilities have been found wanting by staff and students, a view supported by statistical analyses.

Taking curriculum-based data as well as financial statistics, seeking to relate one to another and then looking for comparisons inside and outside the college seems to be the very stuff of education itself. It develops questioning skills and encourages a critical attitude towards data base reliability and validity. Insights are nevertheless growing and what may at first have seemed little more than the quirky curiosity of one manager who could not forget his experience in the private sector is now beginning to interest others.

Technician establishment review

Bob Kedney and Andy Lightbrown

Introduction

Technicians have been an established part of college life for many years. They provide an invaluable paraprofessional service in support of teaching and learning in practical areas. The face of further education has however changed radically, and is in the process of doing so again as some traditional areas of activity decline, new ones come in to take their place and others grow. At the same time it is said that there is a marked shift from the traditional workshops with the rise of student-centred learning facilities and the apprentices have been replaced by other types of students who come with different experiences and expectations. Just as discussion focuses on new contracts and conditions of service for lecturers, references are also made to the role of instructors, workshop and learning centre supervisors and work placement officers. The place and role of the technician may thus be thought to be in the process of changing.

In the lean years leading up to incorporation Woolwich College took such opportunities to make economies and to keep options open as they presented themselves. These included, amongst others, a transfer of technician overtime to planned time off in lieu (TOIL), the shift of some vacancies from departments to cross-college services (such as computing) and the freezing of posts. A point came at the beginning of the 1993/4 academic year, however, when it was appropriate to take stock and a study was undertaken 'to assess the adequacy of the current technician establishment in supporting the effective and efficient delivery of the college curriculum across all areas of provision'.

No financial targets were set; rather, it was accepted at the outset that the outcomes could

involve a case for investment and/or job losses. The focus of the review was to be on the overall level of staffing need, and the distribution of posts in line with current curriculum activity. The focus was not on the individual grades of posts or the medium-term implications of the college development plan, though the latter clearly informed the formulation of the recommendations.

The review techniques

The college sought a measure of independent assessment and advice through three days of consultancy input and this was used to assist in setting out the approach to be used in measuring technician need. The latter was approached through two complementary routes; the first, an objective analysis of curriculum activity as the input to an advisory formula. The second – subjective and qualitative – being based on an extensive cycle of interviews with technicians, managers and a trade union officer. The results were brought together in a report and a set of recommendations.

The formula took as its baseline a measure of teaching and learning activity across the college over a 40 hour period in a busy week. In the event it proved possible to combine the data collection with an accommodation survey, the only additional information required being the recording of practical activities. The rationale used was drawn from the college job descriptions for technicians which confirmed that their primary duty was to support practical teaching and learning experiences. The results, weighted by curriculum need by reference to other studies, the type of work, contracted-out services and consultation with the college staff, produced the features shown in Figure 8.

Figure 8: Example

<i>Curriculum weighting</i>	
Mechanical and motor vehicle engineering	1.0
Sciences	0.9
Electrical engineering	0.8
Art and design	0.33
Information technology	0.25
Other practical activities	0.1

Mitigation was considered where the sample period was considered untypical due to timetabling, out-of-college activities or illness.

The formula:

$$\text{FTE posts} = \frac{\text{practical hours} \times \text{curriculum weighting}}{\text{weekly contracted hours}}$$

does not take account of the variable numbers of students, the salary grades of staff in post or the distribution of staff across teaching and central services. The first is generally assumed to have been addressed by college managers in agreeing to group sizes and the second is dealt with in the weightings of the FTE posts where a senior post was set at 1.6 FTE whereas a term-time only appointment had a cost equivalent of 0.8. The third element is unique to each college and is handled by top-slicing before individual departmental needs are drawn from the balance of the survey returns.

A sample week is at best only a snapshot and the review was particularly concerned to achieve a 'felt fair' position with maximum support for the outcomes. In all, 24 interviews were held with individuals and groups of staff to discuss the approach and to identify other concerns and recommendations. A wide range of observations was recorded and classified under seven headings, including issues not picked up by the survey, accommodation and facilities, organisation and management and strategic planning. The latter led to a recognition that whilst the terms of the review were clearly focused on the current position, any recommendations had to take account of and plan for future change.

The recommendations

The consultancy input produced a wide range of recommendations relating to staffing levels, distribution and working practices and conditions. It proposed that the posts described as 'frozen' be formally deleted from the establishment and that consideration be given to the transfer of FTE posts from the two largest faculties to other, developing areas. The references throughout to FTE posts was deliberate for whilst it is traditional for technician posts to be full-time in the established departments, old, declining or growing areas of specialism do not always warrant such levels of input. Various options such as permanent part-time, job-share, term-time only and joint posts can be used instead; the latter, however, calling for clear managerial support and direction. Transfers of existing post-holders can be achieved through redeployment, retraining, retirement or redundancy. Alternatively, servicing or delaying the match of staff input to need may be considered as temporary expediencies.

The co-ordination and planning of the work of the technicians varied in quality and the adoption of existing best practice was proposed. Communications in a period of rapid change are of particular importance and here again the college demonstrated excellent and not so good examples. In terms of accommodation and the location of practical activities, the recent transfers of work have made major improvements and reduced inter-site traffic but outstanding difficulties still exist which strain the quality of the support service. The continued operation of separate stores on the same site raises questions of duplication which

may not be addressed immediately but should be kept under review. Finally, the integration of the education support staff into the curriculum planning teams together with the individual appraisal interviews will provide on-going opportunities for development. These are likely to need extending from time to time by cross-college analyses of priorities using the techniques developed here.

Value for money

The study was not set any cash savings, nor indeed did it point to any beyond those already achieved through the freezing of vacancies. Rather, it argued for the re-instatement of one of those posts and some small investment in equipment and building works, notably an improvement in the technology stores. It did, however, bring together a wide range of minor operational changes and begin to put on the agenda future developments which will need to be kept under review. The exercise had a direct cost in that it had an input of three consultant days

and gave the corporate college its first experience of commissioning such support.

Following receipt of the report, consultations began at the college with all the interested parties with a view to agreeing proposals and priorities for action. It was generally agreed that there was a need to take stock of the role and distribution of the college technician service and that ad hoc responses to individual changes as they occurred was no longer adequate in the rapidly changing and growing college. The consultant's analysis and recommendations were considered to provide a useful and firm foundation upon which these discussions could take place. They have brought to the college's deliberations an appreciation of the fast developing national scene, useful lessons and comparators from other colleges and an objective formula which may be used in future assessments of technician establishments. Last, but not least, they have brought experience and expertise to an important curriculum issue which might, because of other competing pressures, otherwise have been neglected.

Editor's introduction

The physical asset base of the college is a major resource, second only to academic staff salaries in scale of recurrent spending commitments. It cannot, however, be said to have been subjected to the same degree of monitoring as lecture timetables, class sizes and course lengths. Further, in terms of perceived ownership and value for money, it poses particular challenges as prior to incorporation colleges had only limited managerial control. Gone are the days when buildings were seen as fixed assets, and where the institutional response was gratitude for another portakabin or elderly annexe no longer needed by someone else. As the funding councils set increasingly challenging targets, and colleges have to manage the recurrent costs as well as the safety of their properties, the need to measure their efficiency of occupancy is being viewed with a new and more critical eye.

Central to the sensitive as well as the informed management of change has to be an analysis of current utilisation. Simply asking colleagues for spare rooms or interrogating the timetable has never quite matched the evidence found by management by walkabout. One solution therefore is to systematise the latter as a real time count over a sample period.

In this case study Trevor Daff describes why and how Cambridge Regional College came to undertake a 'space watching' exercise.

The focus he has taken here is on aspects of process rather than the statistical results. The findings here, as elsewhere, suggest that the visual count will typically produce a load measure on available space that is between 15 and 20 per cent lower than that calculated from enrolment data. Given retention rates and temporary absence levels this is not surprising. It is, however, the actual level of

space occupancy at the time of the review rather than a planned optimum.

The real significance in the space watch approach is that it is both sensitive to the actual use of individual spaces, which is where decision-taking will be set, and that it sensitises those involved. Staff across the college know of and are part of the review exercise. Whilst they may wish to see adjustments at the margins to arrive at a 'felt fair' assessment, they have to recognise the findings. The data base thus developed has a degree of transparency and yet robustness that is invaluable. It may be said to be one of the few statistical exercises in college that has the Heineken effect – it reaches the parts other statistics do not!

Background

Cambridge Regional College is in the enviable position of undertaking a major capital building programme, the final outcome of which will mean a substantially improved built environment. The transition period, however, brings with it a series of challenges for managers in terms of both delivering on-going learning programmes through the various stages of building activity and of managing the new assets as they come on stream. As a contribution to both the college conducted a full accommodation survey during the week beginning Monday 24 January 1994. Each teaching area within the college was visited every hour, every day, throughout the week.

During the summer of 1993, phase 1 of the college's new building programme had been completed, as a result of which – with knock-on effects – 60 per cent of the college's staff had their work location changed. To a large extent therefore, previous timetabling practice had been forced to change: good – and not so good – approaches were re-examined.

When the session had settled down, however, it became clear that the visual evidence sometimes differed from the formal timetables. We also found that staff in the new building were unwilling to relocate classes into rooms on other sites, preferring instead to conduct formal sessions in the learning resources centre (LRC). On occasion, four formal sessions were being conducted in the new LRC at any one time. Whilst the centre could currently accommodate this, when subsequent phases came on stream there would be problems.

The move to the new building had released accommodation which had previously been rented from Anglia University. However, the move had not enabled the college to divest itself of some of the worst of its own accommodation. Indeed, whilst some colleagues saw their lot improved with their move to the new building, others saw their conditions worsen, as they moved into vacant rooms as a result of the knock-on effects.

We expected staff to be sensitive to their 'new' environment. What we had not foreseen was the negative effects engendered by the fact that the quality range of our accommodation had been extended: the differences between the best and the worst of our accommodation were now very great, and very conspicuous. We therefore felt the need to revisit our plans to decant from our poorest rooms, and to see whether we could accelerate the process.

The cost of the survey

A room survey, such as the one we conducted is time consuming and intrusive. It therefore demands full support from senior and middle managers. If the survey is conducted in-house, it is also greedy of staff time when they act as tellers. The time span was 9.00 am Monday to 5.00 pm on Friday and as rough rule of thumb enumerators could cover 25 to 30 rooms per hour, except where the walking time between rooms was extensive.

We used administrative and technician staff on half-day sessions. During the data collecting periods themselves, it was not possible for colleagues to properly engage in other activities and this itself caused disruption. We did not, however, incur the direct financial costs of employing additional staff or paying for overtime.

Key findings

One of the effects of an accommodation survey is that it puts use of space at the top of people's agendas, and it makes it easier to open a debate about space use since firm evidence is available to inform any discussions.

In our case unsuitable accommodation could now be given up two to three years sooner than was originally planned, simply because attitudes towards timetabling and space use are changing. We can also move to relocate evening programmes into more suitable accommodation by concentrating provision on particular sites, and thus enabling us to reduce running costs and enhance the quality of provision. By concentrating evening programmes on two main sites, it becomes more cost-effective to provide student support services in the evenings.

General lessons

An accommodation survey is disruptive and expensive in terms of staff time. Owing to this it is not possible to re-run the exercise if it gets off to a false start. Detailed planning is thus essential. So too is management support, not just from some sections of the management team but from all sections. It is also important to emphasise this in a practical way. To this end I personally acted as a teller for two half days on sites which I do not normally visit. My secretary, and the principal's secretary, also played conspicuous roles in collecting information. There was a real attempt to set an example.

Finally, the analysis of the data should be used properly to inform decision-making and the impact of the exercise on timetabling needs to be monitored. The survey is not some research degree to be written up and shelved; it is meant to be a management tool. In this sense its success will be measured by the effect it has on the practical task of timetabling and future accommodation usage. This will not happen just of its own volition, it will need to be consciously managed.

Conclusion

The case studies illustrate aspects of the potential for managed change that has increasingly to become as much the hallmark of colleges as responsiveness has been. In seeking to explore aspects of the processes as well as the resource shifts, the examples have picked up the prime need for leadership. Middle managers are clearly critical in ensuring balance between the reduction of spending and the maintenance of educational standards. Without the support of their senior colleagues they cannot, however, easily address issues at the whole college level or ensure equity of treatment. Individual studies may be undertaken to good effect by project managers. However, any shift from tactical to strategic management will call for a wider view, a longer time frame and the development of new values which inter-relate effective resource management with educational purposes. The individual exercises shift from being bigger and better examples of good housekeeping to become more a way of life.

The cumulative effect of specific projects such as those described by the case studies can be illustrated by two colleges, one set in the early 1980s and the other a decade or so later. The first in the Wirral, saw student recruitment grow by 12 per cent over three years, a somewhat modest achievement compared with some institutions today. It was, however, accompanied by a then unprecedented reduction in the FTE academic staffing level of over one-fifth. Part-time staffing levels were nevertheless maintained at the Audit Commission 'good practice' guide level of 25 per cent. This was achieved by a number of measures designed to raise productivity, such as cutting remission by half, and reducing light timetabling by 80 per cent. Average class sizes rose by 15 per cent and full time course lengths were cut by the same percentage. The small classes that were run became the subject of review and report to the governing body as examples of sound investment rather than potential causes for criticism.

The staffing changes were managed through a mix of the non-filling of vacancies, retraining and redeployment, early retirement and 'voluntary' redundancy schemes. The need to maintain the curriculum was taken as the guideline and posts were not lost from the establishment where viable enrolments existed or were predicted. A limited

measure of 'bumping' was used but related reductions in the numbers employed had to be identifiable for redundancy. The number of college buildings fell from 14 to four but were improved substantially as long awaited improvements were undertaken alongside the reductions in premises-related costs. The colleges employed 51 fewer technicians but retrained and redeployed those who remained. External income rose from £1.39 million to almost £2.5 million, student attendance improved by eight per cent and so too did examination results.

More recently Jim Horrocks, Principal at Barnfield College, has identified the changes in unit costs for his institution. They again show a remarkable shift in both actual and real cost terms, as Figure 9 indicates.

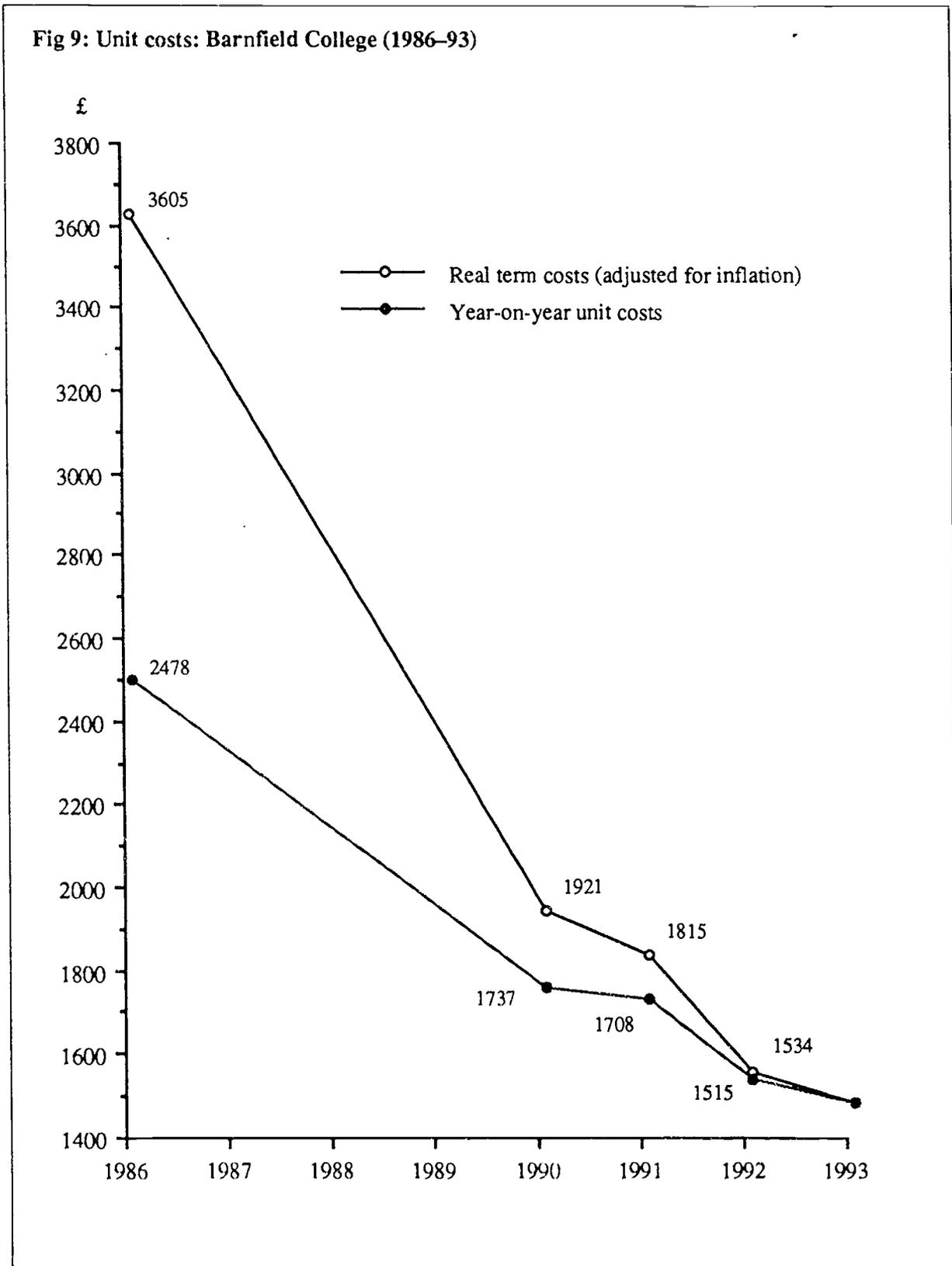
Experience suggests that where managers recognise the potential to manage, are encouraged to recognise and protect educational standards whilst coming to terms with the resourcing base of the college, change will follow. Common sense suggests that there must come a point where cost reduction, however skilfully designed, timed and implemented, reaches a threshold where the financial 'gain' outstrips the acceptable loss of quality and damage is done. Comparisons of the resourcing levels of efficient institutions suggest, however, that where institutions have the will to deploy resources, and to invest as well as to save, the critical questions are more likely to relate to the pace of change and the competence of management than a search for the defensible minimum level of resourcing. The latter clearly exists and is most evident in simple low-cost areas such as buildings maintenance and the supply of equipment and materials. Colleges are, however, complex organisations and limit simple judgements but there is as yet little or no evidence of clear correlations between quality and cost.

Although only anecdotal, there have been suggestions since the work of the Joint Efficiency Study was published in 1987 that it is at least possible if not probable that the leaner colleges may be in a best position to manage cost reduction than some of those more generously resourced. The 1994/5 formula allocations from the funding councils begin to point to changes in resourcing which are moving from marginal to major change. These are being followed by the financial statements at the end of the first year of trading

which show yet further variation between colleges. The rich diversity of opportunities set out in Mendip Paper 054 (Kedney and Davies 1993), together with the case studies described here, may help provide and stimulate ideas which can

contribute to managed change. Similar success stories exist in many colleges and provide encouragement and illumination as well as hope for the future.

Fig 9: Unit costs: Barnfield College (1986-93)



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