September 2015

Undergraduate Medical Education Funding in the UK: Principles and Effects

Philip Chan

Ed.D. thesis, University of Sheffield

Word count 50360 excluding abstract, table of contents & references

The University Of Sheffield.

Abstract

Undergraduate medical education in the UK is dually funded. There is University funding through the Higher Education Funding Council for England (HEFCE) or the devolved governments of the UK, and a second line of funding for the teaching of medical undergraduates in National Health Service (NHS) facilities, known as the service increment for teaching (SIFT).

This study traced how these monies are actually spent, by investigating the allocation plans for these funds within both Universities and the NHS. Although the functions of Universities and healthcare providers are complex, and activities such as student teaching, clinical care and research are inter-related, most of this money is not actually spent on undergraduate medical education, but instead used as a kind of general subsidy for elite institutions, be they Universities or "teaching" hospitals.

This work argues that both funders and providers of medical education realized, and indeed intended, that SIFT was used for purposes peripheral to undergraduate education, by examining the reporting systems for SIFT spending, and the nature of accountability for these large sums of money.

This argument is situated in the history of higher education funding. The history and evolution of both medical University funding and NHS funding for medical undergraduate education are explored. The literature reviewed relates to the history, organization and funding policy of higher education in the post-war period in the UK, with medical education as a special case within this.

The effects of this funding on undergraduate medical education are substantially negative. Although large sums are committed to this activity, most of the money is

used for other purposes, leaving the core activity essentially unfunded, and relying on volunteerism to actually happen. This is explored in a review of the literature as well as fieldwork, interviewing senior figures in both University and NHS who are in charge of teaching or funding allocations.

Probably no organisation or set of individuals meant to disadvantage undergraduate teaching in the NHS. However, the large sums involved discouraged any major change of the SIFT formula, for fear of destabilizing hospital finances and therefore their primary function, to treat the sick. In the University sector, it is an accepted modus operandi to use student funding to invest in prestigious and income-generating activities in the University.

An understanding of why the NHS and Universities acted as they did is attempted, by drawing on the field of behavioural economics, using concepts of mental accounting and fungibility of monetary income. As the funds were poorly accountable, and could be considered a type of windfall income, attitudes to spending it, and accounting for the spending, were markedly different to regular, earned income. This exploration of economic behaviour might touch on some of the root causes of the consequences and unintended consequences of the funding system for undergraduate medical education.

Table of Contents

Chapter 1

Introduction

British undergraduate medical education is funded in a peculiar manner. There is dual funding, both involving relatively large amounts of money. The primary medical qualification is granted through universities, and undergraduates are funded through the governments' higher education budgets. These university costs are funded partially through tuition fees and partly through payment from the Higher Education Funding Council for England (HEFCE) and the devolved government departments of education in Scotland, Wales and Northern Ireland. Fees were paid by local government authorities prior to 2000, when this payment became the responsibility of the student; and this element has steadily been increasing, with corresponding decrease in the HEFCE teaching grant.

Additionally, hospitals and other NHS healthcare providers are funded for additional costs incurred by the NHS related to medical student education through the NHS training budget. In England and Wales this budget line was called the Service Increment for Teaching (SIFT), in Scotland the Additional Costs of Teaching (ACT) and in Northern Ireland the Supplement for Undergraduate Medical and Dental Education (SUMDE). On April 1, 2013, as part of the general reorganization of the NHS in England, the NHS element of medical student education funding has been subsumed into the general budget of Health Education England (HEE). The provisional tariff implemented in 2013 continues to this time, with small reductions each year, but remains colloquially referred to as SIFT.

This research thesis deals with the evolution of higher education funding in the UK, but focuses on the peculiarity of dual funding in medical education. The history and rationale of both university and NHS funding for medical undergraduate education will be explored, detailing the mechanisms of funding, the spending and reporting of the funds. Overall, this research examines the consequences of funding policy, intended and unintended, on the practice of medical education in the universities and NHS. This is intended to inform the new mechanisms of funding currently being introduced.

This research falls into two parts, spanning two main areas of enquiry. The first part is a work of educational policy analysis, with an account of the history and rationale of the dual funding of medical education within higher education. This policy analysis is pursued into the details of funding formulae and how funding is actually spent within universities and hospitals. Analysis will concentrate on effects on education in practice, and point towards consequences both intended and unintended.

The second part is a piece of educational field work. Details of the effects of medical education funding was sought by interview data with selected professionals within the university and NHS; and examination of responses to case scenarios which challenge the purposes of funding. This enquiry focuses on the ground-level effects of education policy and funding; and examines, not how these are supposed to work, but how these actually work in practice.

Medical education is politically important. Not only does it have a special funding from government, which, as will be seen, is much larger than any other higher education sector; but medical schools are often considered the prestigious "blue riband" of their universities, and are reported as such in the press. The prestigious nature of medical education is attested to by the unofficial, but commonly held belief, that a clinical medical school is one of the requirements for a University to join the Russell group, which are regarded as the elite universities in the UK (Burnett, 2014).

Taken together, this research examines the origins, structure and operation of funding for UK undergraduate medical education. At a time when there has been great upheaval in the National Health Service (NHS) as well as an era of change in UK higher education, this work is intended to serve as a "lesson from history" and a guide to the design of future mechanisms of funding for medical education.

Chapter 2

Research Approach and Methodology

The research proposes to concentrate on the reasons underlying the evolution of the policy for funding medical education in the UK, and the actual effects of the funding policy on the standards and performance of clinical teaching within NHS institutions.

The overall approach and strategy is to investigate this funding in a multi-faceted way; not only how the policy was made and what its historical context was; but also how the policy was intended to be put into operation, and how that operation affected medical education at the ground level. After some consideration, I felt that the most useful approach would involve three stages, and three types of specific approaches and methods, one at each stage; documentary analysis, empirical fieldwork and theoretical analysis.

2.1 Documentary analysis

I performed a systematic and thematic reading of primary and secondary sources to establish the history, character, context and operation of SIFT funding. This included the core academic literature and documents examined, including archival sources and statistical sources and a variety of public and institutional documents.

2.1.1 Range of documentary sources

Evidence for the history, policy background, operation and theoretical aspects of funding policy for UK medical education came from a large range of background sources. These included the published literature, in books and journals from educational studies, medicine, management and accounting, economics and psychology; archival sources, notably from the Royal London Hospital/Bart's Health Archives; NHS records and operational documents, and qualitative studies of education within the NHS (McCulloch 2004). Documents were read for their insight into the mechanism of SIFT in particular and higher education funding in general.

No particular formal content analysis was necessary or possible, due to the heterogeneity of the literature.

The history of funding in British higher education is well documented, at least in the post-war years. There have been two major independent inquiries, associated with the names of Robbins and Dearing, and a large number of intermediate developments. This history has been contingent on several over-arching themes; the expansion of higher education from exclusivity to minority to mass participation; and the development of the block grant system to a more mixed picture of state and private funding (see, for example, Shattock 2012, Brown 2013, Tight 2009).

In relation to spending this income, there is a literature relating to governance in higher education. Although expenditure within universities is not well accounted for, and it is especially difficult to disentangle some of the purposes of expenditure such as research and teaching, some conclusions can be drawn pointing to increasing accountability of the money spent. In recent times this accountability has started to extend into teaching quality and the student experience.

The literature relating to medical education funding is much more sparse, as determined by standard online searches of multiple databases (Medline, CINAHL, Google Scholar) using search terms including SIFT, medical education funding, medical school budget, higher education funding.

There was no mention of funding at all in the standard accounts of medical education (Calman 2006, Walsh 2013, Swanwick 2010). Only four articles in the literature had SIFT as a title or keyword in a Medline search. Hand-searching from these primary references reveals little additional material. There has been one significant government level report into SIFT in 1995, associated with the name of Winyard, and this will be the subject of detailed analysis.

There were a number of official and semi-official documents related to SIFT and its

variants. Chief among these were three government publications: the report from the Ministry of Health Inter-departmental committee on medical schools 1944 (the Goodenough report); the Royal Commission on Medical Education 1965-8 Report (the Todd report); and the report published by the NHS Executive setting out the guiding principles of the last reform of SIFT funding, entitled SIFT into the Future (Winyard, 1995). These documents laid out the development, rationale and broad framework of the mechanism of funding for medical education and were obtained from the British Library. There has been a recent flurry of documentation relating to the replacement of SIFT, accessed through the websites of Health Education England, and the House of Commons Health Select Committtee.

Preceding Winyard were a number of scholarly articles in the peer-reviewed literature, ranging from the British Medical Journal to the Journal of Public Finance and Accounting, which informed matters in the report. Very influential in calculating the funding mechanism was the so-called Leicester study, published by NHS Trent, which attempted to quantify the actual costs of undergraduate medical education, for the first time.

There were a number of official and semi-official documents around the Winyard report. The NHS Executive published a guidance document for the new SIFT regime introduced in 1995, which is revealing of actual practice, rather than principles of the funding. The devolved governments of Scotland and Northern Ireland also published discussion documents relating to parallel changes in their ACT and SUMDE funding.

Also, there were official reports of SIFT funding accountability, published for the years 1998-2001. These reports detailed the actual spend in certain areas, such as for acute hospital Trusts, general practices and community organisations. There was not much detail on how the funding is spent within any individual organisation. Interestingly, although there had been no change in the funding arrangements, no accountability reports have been published for ten years 2001-11.

There was surprisingly scanty commentary on the effects of SIFT. A critical piece from Bevan (who was one of the authors of the Winyard report) was published in the British Medical Journal in 1999, with a rebuttal from his colleague Clack (Bevan 1999, Clack 2000). That exchange apart, there has been little academic interest in the topic despite its obvious importance to medical education.

The Academic Staff Committee of the British Medical Association published a key study in 2007. The unusual methodology used in this study was the use of Freedom of Information orders on a sample of 33 university teaching hospital Trusts in England, seeking answers to the following questions:

1. the amount of SIFT money received over the last five years;
2. how the SIFT money was spent over the last five years;
3. how much of the SIFT money was spent on teaching sessions by hospital consultants over the last five years;
4. how much of the SIFT money was spent on accommodation for medical students over the last five years.

The Freedom of Information Act mandates publicly funded bodies, including all hospital Trusts to respond to such requests, within twenty working days. Nevertheless, 10/33 Trusts gave no response at all.

Therefore the information available of how this money was spent within an individual organization was based on a small minority (13/33) of responding Trusts (British Medical Association, 2007). Analysis of this unique survey raised enough questions for a more probing investigation of how SIFT is spent within a teaching organization in pursuit of its teaching mission. Unfortunately, no such study has been published, and this research thesis intends to make good this defect.

As much of this work explores how the money was used, I have looked at the internal documents of some of the hospitals that received SIFT. The most complete

and accessible archive that I used was at the Royal London Hospital Trust/ Bart's and the London Medical School. This institution has changed its name several times; the London Hospital has become the Royal London Hospital, and its governing organization is Bart's and the London NHS Trust. The Medical school has changed its name in parallel, but references to any of these names only refers to one of two organisations; the hospital and the Medical School. This has a continuous, well organized sequence of documents dating back to the foundation of the Medical College in 1859, right up to around 2000. I refer to the Archive reference numbers when I am quoting from one of these internal documents.

Operational documents on SIFT allocation and spending existed within teaching organizations and strategic health authorities (SHA), which distributed SIFT money on behalf of the Department of Health. The national SIFT accountability reports were found on the Department of Health website; but local reports were published within Trust accounts and medical school policy documents. SIFT contracts were a matter of public record, and obtained from the relevant Strategic Health Authorities (SHA). . The most public of these documents were the actual contracts between SHAs and Trusts for education, and the conditions attached to transfer of money. All of these documents are in the public domain, and available on request, or within the library archives of the relevant Trusts and SHAs. These primary sources were not organized in any way, but were the only "behind the scenes" indicator of how the funding system actually worked (McCulloch 2004).

Once the money arrived within the education provider, spending of this sum was not always obvious. The documentary trail within the provider tended to disappear rather quickly, and I have relied on empirical methods to clarify spending of the money. In comparison with some of my interviews, the literature on the attitude and motivation of health professionals to clinical teaching was used in comparison to my empirical findings, particularly the in-depth interviews of Seabrook with consultants in a London teaching hospital (Seabrook 2003).

2.1.2 Analysis

The field of education policy is troubled by the inexact methodology of analysis of different types of data. Ball noted that the field of policy analysis has been dominated by commentary and critique, often from powerful individuals connected with formulating policy, rather than from "ordinary" clients of the policy (Ball 1990, p9). He went on to make the very influential comment,

the vast majority of studies of educational policy have something to say to those affected by such policies, but are devoid of any explanatory or sociological interest (Ball & Shilling 1994).

Educational policy study has developed in this direction, becoming increasingly concerned with the process of policy formation, incorporating understanding of the broad historical, social and economic context (Ryder 1996).

The purpose of this research proposal is to return to a rather simpler analytic model. The focus of analysis here is to delineate the practical effects of funding policy on the delivery of medical student teaching in the Universities and NHS. According to Dryzek (1982), as the policy being analysed is focused upon a particular problem, the analysis should therefore evaluate the effects of the policy on that particular problem. This seems obvious, but the definition of which effects to evaluate, and what measurements to use, are contested territories.

Halpin (1994, p200) suggests to *test empirically the claims made of behalf of particular policies by their architects and advocates*. There does not appear to be a shortage of such claims. The Winyard report (Winyard 1995) explicitly sets out the objectives of the new SIFT system, operating today:

1. *To give flexible NHS financial support to high quality and innovative medical education;*

2. *To improve accountability – clarity on the purpose of spending; demonstration that costs contribute effectively and efficiently to that purpose; clear responsibilities within collaborative relationships;*
3. *To create a stable framework within which there can be evolution towards changes which cannot be achieved at once.*

Clack claims *the climate in education now places increased emphasis on quality… SIFT is one lever to help achieve this through effective targeting of the resource and the creation of meaningful contracts* (Clack 2000).

Discussing parameters for the next review of SIFT, the Winyard report states *It will be important to have a clear educational focus, to assess the way money is used to support the education of medical students as individuals* (Winyard 1995).

The analysis of documents and interviews within this framework is personal, and subject to personal bias. Bias reduction in the analysis of qualitative data is not always seen as necessary; indeed, advocacy of a particular viewpoint such as feminism, or on behalf of underserved populations, can be the declared motivation for particular types of policy analysis (Taylor 1997). Taylor is particular in distinguishing between policy analysis and policy evaluation, which she considers managerialist and technicist. As this work concentrates on the results of policy, perhaps it is of this managerialist/technicist nature and more useful to students of the effects of education rather than to scholars of educational methodology. This type of evaluation, concentrating on facts and figures, is arguably less prone to bias than more interpretative forms of analysis.

2.1.3 Economic methodology

As much of this research involves money, and historical analysis, I have made a decision to convert all historical amounts into 2010 values, in pounds sterling (GBP). I have utilised the methodology of the Economic History Society, who run the

Measuring Worth calculator website (www.measuringworth.com). I have elected to use the conversion in the most straightforward way; the simple purchasing power calculation only takes into account inflation in terms of retail price index (RPI) in all the intervening years to 2010. Arguably, institutional income, particularly when it is received from government, should be treated as economic power income, which measures this income relative to the total output of the economy, thereby indicating the relative "influence" of this money. The difference between RPI and economic power can be very large; for example, the sum of £350 granted by the London Hospital to the London Medical College translates into £27340 in 2010 using RPI; but into £642900 in terms of economic power cost.

2.2 Empirical methods

There was a need to generate data from interviews of individuals concerned with funding of medical education; to seek their views on the origins and purposes of the funding; to check inferences from documentary evidence on some of the operational aspects of the funding; and, most importantly, to gain their insights into how the funding worked in practice to support medical education, and where the weaknesses of the system lay.

2.2.1 Interviews

The second methodology employed in this research is qualitative research using interview data. I interviewed willing participants who had knowledge of the workings of SIFT and of medical school funding within the University. I was trying to find out the details of how the system worked to support teaching on the ground, rather than in policy documents.

The interviews were semi structured, revolving around the general theme of how the institution spends SIFT or HEFCE/student fee money. Particular matters of interest in these interviews focused on whether the spend included teacher time; how the quality of teaching was monitored; whether there was funding for teaching

excellence or innovation; and whether there were any evident weaknesses in the system of funding medical teaching.

At the time of the interviews, 2012-14, SIFT was still considered the current method of funding, as the replacement of SIFT in 2013 was only provisional; therefore much of the interview material refer to SIFT in the present tense, although, strictly speaking, the comments were historical. Interestingly, the Health Education England tariff which replaced SIFT in England is still commonly referred to as SIFT by University and NHS financial staff, including the Local Education Board (LETB) staff who are responsible for its administration. Similarly, although student fees comprise a larger proportion of the University student-related funding since 2012, there is still a substantial HEFCE component, and most interviewees refer to HEFCE funds a shorthand for the combined fee and HEFCE income.

2.2.2 Interview methodology

I planned to interview staff at three levels in both Trust and University. There are two different types of hospital Trust with reference to SIFT, the central teaching hospital , which receives the bulk of both facilities and placement payments; and the district general, or associated teaching hospital, which receives placement payment at the same rate, but generally has fewer placements; and does not receive much of the facilities SIFT.

The different levels of staff would have different perspectives on the economics of education. Level 1 staff would be responsible and accountable for education, and could be expected to have strong knowledge of the sources and conditions attached to their income, as well as the rules for spending it. Level 2 staff were more responsible for using the income available to organize and make education happen; level 3 staff were concerned with delivering this education, although, as we shall see, not always aware of the economics of this.

Table 2.1 Interview schedule

	University medical school (U)	Central teaching hospital (C)	Associated teaching hospital (A)
Level 1 Responsible heads	Dean, director of teaching, School secretary	CEO, medical director, finance director	CEO, medical director, finance director
Level 2 Teaching organisers	phase directors, year heads	Undergraduate teaching leads, teaching liaison officers	Associate Director of Teaching, teaching liaison officers
Level 3 Teachers	Teaching faculty, lecturers	Clinical teachers	Clinical teachers

I was able to interview at all three levels in two medical schools/teaching hospitals, and in a variety of associated teaching hospitals associated with the two cities. Although no interviewee at any time expressed a wish to remain anonymous, I have reached a decision to anonymise almost every interview (see below, 2.2.3). I will refer to interviews by their place on the above scheme in Table 1 (U1-3, C1-3 and A1-3) to clarify the status of the interviewee. As there were no significant differences in the information that I received from the two cities/Universities, I will not distinguish between the two. I was also able to interview Gwyn Bevan, who was intimately involved with the origins of SIFT and became one of its most prominent critics, and is now Professor and Head of the Management school at the London School of Economics, who did not wish to remain anonymous.

The total numbers of people interviewed in each area are summarized in Table 2.2.

Table 2.2 Interviews

	University medical school (U)	Central teaching hospital (C)	Associated teaching hospital (A)
Level 1 Responsible heads	3	3	2
Level 2 Teaching organisers	2	3	4
Level 3 Teachers	2	4	2

The interviews were conversational and only loosely structured. For Level 1 interviewees, a lot of the discussion centered on resource allocation, and whether the resource could be seen as supporting student teaching or not. For Level 2 interviewees the discussion centred on their problems with finance and with recruitment of teaching for the students. For Level 3 interviewees, it was mostly a matter of awareness of the funding, and whether more explicitly allocated funding would make a difference to their teaching activities.

The interview questions broadly followed this scheme;

Levels 1&2

1. How is the money for teaching spent?
2. What proportion of the resource is spent on purposes other than teaching undergraduates?
3. What proportion of the resource is spent on teachers' salaries?

4. Does the teaching money subsidise other, non-teaching related activities within the institution? If so, to what extent does it do so? Does this constitute a disadvantage for teaching?
5. Would you propose a change to this funding scheme?

Level 3

1. Are you paid for teaching? If so, is this pay proportionate to your teaching effort? If not, should you be?
2. Are you aware of funds that you can access for teaching delivery? Do you require such funds to teach better?

These conversations, although interesting to some, appeared a little dry and theoretical. I therefore incorporated an additional structure, exploring three hypothetical scenarios relating to everyday practical problems. This definitely elicited a warm response, particularly for Level 2 interviewees, who, without exception, strongly identified with these problems. The scenarios were all of practical difficulties with the organisation of clinical teaching, and were actually genuine examples from the author's own experience.

•**Teaching refusal.** A clinical unit decides that, due to service pressure, they can not accommodate medical students for that year
•**Teaching disengagement.** A clinical/medical school unit declines to provide lecturers or small group tutors for a medical school module
•**Unacceptable teaching quality.** A clinical unit has repeated unsatisfactory reports from student attachments; including failure to provide timetables, inadequate senior contact and supervision, and poor assessment practices.

The interviewees were invited to comment on how the existing funding mechanism could be used to address these problems.

Level 1

Could such a scenario happen? How would you deal with it? What funding implications are there for the clinical unit? Would you change the funding mechanism in order to avert these scenarios?
Levels 2&3
Are you familiar with any similar scenarios? What happened? Were there any financial consequences?

This combination of free-form, semi-structured questions to sketch the general scheme of how the teaching resource is used, with more particular, scenario-based probing to tease out detailed differences, proved powerful and fruitful.

Nine long interviews were transcripted, and a checkback procedure effected with the transcript returned to the interviewee. According to standard practice, all corrections from the interviewee were incorporated, and lack of response to the checkback was taken as assent. The very short interviews with level 3 teachers, four non-recorded interviews and four telephone interviews were not transcripted, but contemporaneous notes were made during and just after the interview, which were checked with the interviewee.

2.2.3 Role and status of the interviewer and the insider problem

The author's own status is a mixed blessing. As a consultant surgeon, and University Reader, with a senior role in medical education and a modest national profile in the professional medical education societies, I was seen as having a legitimate interest in the way medical education funding operates. As a senior figure in medical education, I was able to obtain direct answers to delicate questions that may have been evaded in other circumstances. In terms defined by Mercer (Mercer 2007), both access and rapport are advantaged in my search for information. My positionality is therefore one of the insider group, involved with the organisation and management of medical education in both the University and the NHS, although not necessarily in that institution. I have however, taken a critical perspective on

some of the underlying assumptions of my peer group. I can confirm that I have little to gain, in material terms, by taking this perspective.

Interviewees at level 1 and 2 were relatively senior academics and NHS personnel, with a great deal of experience in dealing with interview situations. They were not really susceptible to being "led" unless they wanted to be led (Robson 2004) or to give an "expected" response; they were, if anything, inclined to do the opposite.

I thought that, emerging from these interviews, any overt or implied criticisms of their use of funding may lead to conclusions that are disliked at senior management level. Although I felt that this might reduce co-operation from interviewees, I actually experienced the opposite. All interviewees were actually more free and frank with their remarks than I expected, and made more risky and dangerous statements than I had anticipated. I don't believe that this was due to my skills as an interviewer provocateur. I have come to the conclusion that the interviewees themselves were deeply ambivalent about the system, and, when presented with the opportunity of a "neutral" academic inquiry, they did not hesitate to express their own discomfort and disagreement with a system that superficially advantaged the institution.

Motivation is an issue when discussing the unintended consequences of policy. If a policy does not work as intended in important ways, it does not follow that the executors of that policy are did not wish it to work, or subverted it in any way. I never intended this study to be an investigation of wrongdoing, and having communicated that position during the interviews, I believe that it reassured interviewees that they were not being incriminated, or somehow cast as villains. This may have created a space of safety which promoted full disclosure of information, Most significantly, not a single interviewee specified a wish to remain anonymous, although I have reached a decision to anonymise almost everyone, excepting those who specifically requested otherwise. This decision was taken in order to protect my interviewees from either retrospective action by their

employers (which I, and the interviewees regard as unlikely), or embarrassment through some misreporting of their comments out of context, if this publication is seen and used by others in that way. I have attempted to use two different medical schools in order to iron out any idiosyncrasies; but there are good grounds to believe that most, if not all, medical schools and central teaching hospital Trusts in the UK would have essentially similar usage of funds (British Medical Association 2007 and see Chapter 5.5). There is likely to be variation in the smaller associated teaching hospitals, involving smaller amounts of money.

2.2.4 Analysis

Interpretation of interview data is more prone to bias than documentary analysis. The "true' meaning of text can be contested, but as the text exists, those arguments are public, and can be made publicly. However, the text of an interview transcript is necessarily just the interviewer's account of the interviewee's story. Hull describes a "black market" in which the interviewer is party to information about the circumstances of the interview, the contextual nature of the answers, and qualification of language by facial expression and body language that does not necessarily appear in transcripted material (Hull 1985). For the type of materialistic interview, which is intended in this research project, in which parties are essentially asked to describe how funds are used, and to speculate on how they might respond to hypothetical scenarios, this type of bias is less important than for the life-story type of interviews that accompany more sociological research.

There has been a movement to more mechanical types of analysis, partly in response to the possibility of bias. Grounded theory was developed really to generate middle-level hypotheses from analyses of large amounts of rather chaotic qualitative data. Glaser and Strauss developed the idea that coding, and the grouping of coding into categories, could generate hypotheses from grouping as they emerged from the mass of data (Corbin & Strauss 1990). This process can be done automatically to some extent, using software such as NVivo (QSR International) which reduces bias; however, the naming of categories and the relative importance

attributed to each category or theme remains relatively subjective, and open to interpretative bias.

For this project, the numbers of interviews were quite small, so no objective software-based thematic analysis was either appropriate or possible. As the interviews concentrated on factual statements, patterns could fairly easily emerge.

Policy analysis is more than just interpreting documentary and field data. Larger, more overarching issues are informed by these data, and require consideration. This type of consideration would benefit from a structured approach. Although cumbersome in any particular instance, this type of structure has the benefit of comprehensive coverage of possible issues, and therefore helps to avoid major gaps in thinking or in research design. Musick, based on the work of LaBrecque, suggests the following structure specifically for issues in medical education. I have applied this structured analysis to financial policy for UK medical student funding (Musick 1998);

A. Conceptual: What is the purpose of this funding regime (nominally to cover the expenses of medical student education)? How can these educational aims be measured? Does the policy tend to encourage its aims?
B. Normative: What expenses should be covered by this funding? What should not?
C. Theoretical: What theoretical framework and assumptions lie behind the formulation and continuation of this policy?
D. Empirical: Are there credible research studies that inform this policy? Is there research that speaks against this policy? What are the effects, intended and unintended, beneficial and otherwise, of this policy on its intended aims?
E. Economic: What is the impact of this financial policy on both funders and receivers? Does the policy deliver value for money? What would be the impact of significant change?

F. Political: Was the adoption of this policy rooted in political thinking of its time? Has the political climate changed enough to justify policy change?
G. Cultural: Does this policy fit in with the organisational and professional cultures of the University and NHS? Would change disrupt this?
H. Ideological: Does this policy serve the self-interest of the parties affected? How is this consistent with value for public money? Does the policy provoke potential or actual conflicts of interest?
I. Historical: What is the historical background of the present funding policy? Does this inform proposals for change?
J. Assumptive: Are there key assumptions made by parties involved or affected by this policy? Have these assumptions been made explicit and are they clearly understood by all parties?
K. Legal: What is the legal basis of this funding? Do the legal aspects have a bearing on policy development or change?
L. Logical: Are statements made in favour of this policy logically sound? Would they bear critical inspection? Are the consequences of the funding policy logically predictable?

Consideration of all twelve aspects of funding policy may help in developing a sound overall picture of the way the policy was developed and currently runs.

2.3 Theoretical aspects

This research is concerned with funding, and therefore draws on the field of economics; specifically of microeconomics, which studies rational economic behaviour within a constrained world. Although economics has been demonized as the "dismal science", it does try to reach rational explanations for why individuals and groups act as they do. One of the simplifying assumptions of economics is that individuals and groups act rationally, generally in their material interest. In reality, there are many exceptions to this simplification, and the field of behavioural economics has developed in order to seek explanations about the influence of

human psychology on economic behaviour. Concepts from the new field of behavioural economics will be introduced which have potential to give insight into the way in which medical education funding developed and was used. I will introduce in particular the concepts of moral hazard and fungibility, which have great relevance and have power to explain and interpret features and findings from the literature review, documentary studies and interview studies.

There might be an objection that education is not subject to economic rules; that teachers teach from vocation, and that only infrastructure is dependent on funding. This argument is in fact echoed in some of my later interview studies, but in general terms I would strongly argue that this is not true. Very few teachers would teach for no salary or fee. Once economic reward enters the equation, it is difficult indeed to argue that the general rules of economics, or insights from other fields of economic behaviour, do not apply.

2.4. Central focus and research questions

The basic research questions will focus on both components of the dual system for medical undergraduate education funding.

A review of the special status of medical education within university grants funding will be undertaken to understand the broad framework of funding policy for higher education. The patterns of expenditure of this grant will be examined with a view to answering these questions:

I. How is the HEFCE/student fee teaching resource spent?
II. How does this contribute to the education of medical students?
III. Are there incentives for improvement in the education of medical students?
IV. Are there disincentives to improvement in the education of medical students?

SIFT was investigated and described in order to ascertain its fitness for purpose for funding undergraduate medical education in the NHS (after Halpin 1994).

V. What was the formula for calculation of SIFT funding?
VI. Was SIFT funding fairly distributed?
VII. Was SIFT funding spent for the education of medical students?
VIII. Was SIFT funding spent for other purposes and what are they?
IX. Was SIFT payment clearly accountable?
X. Was SIFT funding reviewed by government in value for money terms?

What were the overall effects of the SIFT policy regime on the organisation and delivery of teaching in NHS institutions? This over-arching question is best addressed by the policy analysis framework adapted from Musick (1998) in 2.2.4,

I assumed the funding mechanisms were intended to ensure that teaching of medical students would occur, to an acceptably high standard. The way in which the funding was spent, and the rules governing this expenditure could therefore reveal whether the system was fit for its purpose.

2.5 Claim to knowledge

To some extent, this project bears the same relationship to conventional analyses of educational policy as microeconomics does to macroeconomics. The discipline of microeconomics focuses on the decisions made by individuals and businesses on allocation of resources and the price of goods and services, both supplied and consumed. This contrasts with the more traditional macroeconomic perspective on aggregated data, and influences on how the whole economy functions in relation to external pressures.

Research into educational policy has tended to focus on the macro areas; how policy is formed, what are its root causes, what problems policy is designed to solve, what influences changes in policy, who are the players in the formation and change of

policy. This research engages in historical analysis of the origins of SIFT in order to provide an insight into the motivations and methodology of this policy. This research goes on to examine the effect of the SIFT system on the actual practice of undergraduate medical education, elucidating how the system operates down to the level of teacher and student, and investigates scenarios of system failure. Machin and Vignoles, in their overview of UK educational policy, state:

although economists and others are increasingly able to inform policy-makers on the impact and efficacy of specific policy interventions, the evaluation of specific policies in a rigorous manner unfortunately remains relatively unusual. This is mainly because the design of policy interventions is often such that they are not amenable to economic evaluation (Machin & Vignoles 2006, p1)

The evaluation I intend to offer is not economic in the sense of currency inputs and outputs, but economic in the senses of value for money and resources allocated to the primary mission of the funding. The evaluation is based on criteria established by the policy documentation itself, and the comments of its defenders, and of frontline organizers of medical education in the NHS.

The major claim to knowledge for this research is that this project represents the first study of how the structure of medical education funding affected the delivery of medical education, down to the level of the teacher and the student. It attempts to understand the rationale of this method of resource allocation, and to outline both intended and unintended consequences affecting its primary purpose.

2.6 Ethical permission

I confirm that this work received ethical permission from the Department of Education on 2 February 2012, which is reproduced as an appendix.

Chapter 3

History and Funding of Universities in UK Medical Education

3.1. Outline of medical education in the UK

There are 33 medical schools in the UK as of 2014. All of them are associated with a larger university; three are partnerships of two universities (Hull-York, Brighton-Sussex and Durham-Newcastle). They admit each between approximately 50 and 450 students per year. The courses are four, five or six years in duration; conventionally the course is two years preclinical sciences and three years clinical studies based in the medical workplace, but the preclinical phase can be shorter (especially for courses that are restricted to graduate-entry) or longer, to incorporate either a research-based year, or a foundation year for students with educational disadvantage.

All students completing the courses graduate with a bachelor's degree in medicine and surgery, which is the primary medical qualification. In the UK system the degree of doctor of medicine is a research thesis based degree, analogous to other university doctorates. All doctors completing their primary medical qualification are registered by the General Medical Council (GMC) to permit them to practice medicine in the UK. This registration is provisional at graduation, and becomes full registration after completion of a foundation year of training after graduation. There is no national examination administered by the GMC; it operates a process of recognition of university medical schools to award the primary medical qualification, using a system of inspection and reports. The GMC was established by the Medical Act 1858 to regularize and license medical practice; but the system of medical education and many of the existing medical schools long pre-date this.

Fig. 3.1 Location of UK Medical Schools 2014

Hull-York is a single school.

3.1.1 History of UK Medical Education

In every society there have always been medical practitioners. Their education has always been informal, based on apprenticeship, frequently from father to son. With increasing urbanization in Britain in the Middle Ages, medical practice differentiated into three specializations; surgery, apothecaries and physicians; and coalesced into medical corporations representing these practitioners. The functions of these corporations was the same as for other trade guilds; to represent the political interests of their group, to regulate standards and exclude outsiders. The most prominent of these guilds became legal regulatory entities in London, the largest

city. The Barber Surgeons of London received their Royal Charter in 1462; the Royal College of Physicians in 1518; and the Worshipful Company of Grocers, from which the apothecaries later spun off, was incorporated in 1428. Although their educational function was secondary to their political and regulatory functions, all these corporations were concerned with the standard of education and training received by prospective members, and the recognition of their informal trainers.

Alongside these developments, the only two British universities (Oxford and Cambridge) began to award degrees in medicine, from around the first half of the 13th century. These degrees were restricted to the clergy, and comprised theoretical study of ancient texts rather than any practical exposition. Meanwhile, more practical approaches to medicine were developed at European universities, with bedside instruction, notably Bologna, Padua and Leiden; and many British physicians travelled to these centres to take degrees in medicine. The first university faculty of medicine in Britain was founded in Edinburgh in 1726, by graduates of the University of Leiden.

Hospitals existed as charitable institutions, usually affiliated to a religious establishment. In London, St Bartholomew's London dates from 1123 and St. Thomas' from around 1173. These hospitals were not initially much concerned with medical education, but would form the basis of the rise of the teaching hospital in later times.

Meanwhile, medical education in Britain developed in the University of Edinburgh and in the private medical schools of London, often founded by Scotsmen, such as John and William Hunter (1746). With the instability of multiple private medical schools in London (see chapter 3) the organisation of medical education became increasingly centred on stable institutions, the hospitals; particularly as medical staff were shared both by the hospital and teaching institutions. The dominance of London teaching hospitals in British medical education dates from the 18th and 19th centuries, as both medical practice and education became increasingly centred upon

these bodies. It became common practice for students of medicine from Oxford and Cambridge to spend some years in London teaching hospitals in order to gain clinical instruction; a practice that survives even to this day.

Parallel to the development of London teaching hospitals was the founding of first, University College and then King's College London. Provincial medical schools began to proliferate in the large cities of the 19th century, and they became automatically associated with the city university when these were founded. Most London medical students however would take their degrees from Oxford or Cambridge, or alternatively no degree at all, instead sitting the examinations of the medical corporations, the Royal College of Physicians and the Royal College of Surgeons or the Society of Apothecaries.

3.1.2 Government and Medical Education

The Medical Act 1858 was the first government intervention in medical practice, in order to protect the public from quackery by defining and maintaining standards. Implicit in this was a degree of control over medical education, but initially, this was still devolved to the medical corporations. As the GMC grew in power and influence through the second half of the 19th century, there also grew a tendency to entrust more and more of the approved education to the Universities.

The first Royal Commission on medical education was convened in 1881 to review the results of the Medical Act. The Commission found in favour of the variety of providers of medical education, but recommended a "single portal" of entry into the Medical Register, controlled by a powerful Medical Council. Although the vested interests of the various providers of medical education defeated the single portal idea, the Medical Act 1886 empowered the regulatory role of the GMC and the movement towards university education for most, but not all, intending medical practitioners.

The Haldane Commission 1912 further recommended the extension of University control into the teaching hospitals and medical schools. This was a London-centric recommendation, as the coming together of universities and medical schools had already largely occurred spontaneously in the provincial cities. Although its recommendations were essentially nullified by the Great War, the inception of state funding for university education with the University Grants Committee in 1919 further advanced the trend towards the takeover of medical education from London hospitals and into the colleges of London University. The Haldane Commission recommendations, much influenced by Flexner in the US, also instituted the now familiar division between early preclinical studies and later clinical studies as part of medical education (Flexner 1910).

The Goodenough Committee was charged in 1944 with a review of the medical schools in anticipation of the organization of the National Health Service after the Second World War. It brought all medical schools under University control. This was somewhat diluted in London, as all hitherto independent teaching hospital medical schools reconstituted themselves as independent colleges of the University of London. Goodenough was part of the wave of reviews of specialist higher education informing the Education Act 1944 in anticipation of the servicemen returning from the war to education (Tight 2009).

The next Royal Commission was convened under Lord Todd and reported in 1968. It was a periodic review and future scoping exercise, partly to address the lack of information about medical education. It has to be seen in the context of the epochal Robbins report on Higher Education in 1963, which recommended an expansion of the university sector, and the first steps to the widening participation agenda in higher education. Robbins has very little specific to say in regard of medical education. There are only 31 occurrences of the word “medical” in the entire report, of which four are comments on higher education with exceptions for medical studies!

The Todd report could be regarded as Robbins for medical education. In contrast to the expansion and widening participation thrust of the Robbins reforms, the medical part of higher education remained a resolutely closed shop, and with limited student numbers. Most of its conclusions relate to planned expansion of medical schools, including recommendations for new medical schools. Although it took almost 40 years for this expansion to reach its fullest extent, the new schools at Newcastle, Nottingham, Southampton, Leicester, Swansea, Keele and Warwick have their genesis in this report.

The Short report 1981 was commissioned from the Department of Social Services and only addressed the structure and numbers of postgraduate medical education. It had no recommendations on undergraduate medical education, except indirectly, in terms of numbers of doctors required for the NHS.

Tomlinson (1992) finally broke the tradition of the London teaching hospitals as independent medical schools, as part of its review of both hospital and community medical services in London. It recommended that eight out of nine of these schools should merge, under the aegis of multi-faculty colleges of the University of London (University College, King's College, Imperial College and Queen Mary), with only St. George's retaining its previous independence, gained at the cost of moving from its traditional location on Hyde Park Corner to Tooting.

The Dearing report 1997 responded to a deepening financial crisis in the higher education sector, largely because of expanded numbers with reduction in the unit of resource to fund them. It introduced student-paid tuition fees for full time undergraduate education for the first time in the post-war era, as well as recommending further expansion in numbers. With medical student numbers strictly controlled, there was no real effect on medical education. However, the fee element from students which was paid direct to medical schools, although initially quite modest in amount, would now become a factor in the consideration of funding

for their education. None of this fee element was planned to cover the costs of their education in the NHS workplaces.

The latest large expansion of medical schools occurred, not in response to a Royal Commission, but to the NHS Plan for Reform (NHS 2000). This created 1000 new medical school places for an expanding NHS, and four new medical schools, all partnerships (Exeter-Plymouth, Hull-York, Durham-Newcastle and Brighton-Sussex).

The Browne report (2011) proposed an increase in the fee element payable by students, and the removal of the limit on the number of students with high A level tariffs that universities could admit into courses. Medicine (and dentistry) were excepted from the competition for highly qualified A level achievers, as the minimum standard for these competitive courses already exceeded the high tariff threshold.

It is noteworthy that concurrent huge changes in higher education (Carswell 1985, Shattock 1994, Shattock 2012, Tight 2009) had little specific effect on medical education. The major trends in higher education within the last half century have been in state interventions in funding, expansion in numbers from an elite model to a mass model of higher education, research ranking and funding, and lately, student satisfaction (Tight 2009, chapter 3, pp57-91). Of these, really only the last has had any impact on medical education, which remains generously funded (see later, chapters 3-5), with continued restriction in numbers. It is particularly noteworthy that after the move to full funding of undergraduate education through fees after Browne (2011), that the premium for clinical medicine was uniquely preserved (along with veterinary medicine) and funded by HEFCE grant. The move from elite to mass higher education has been restricted in medicine by the retention of strict control of medical student numbers, and the increasing tariff requirements for entry into medical school. Although research ranking is reputationally important, it has little connection with learning and teaching of undergraduate medical students

(Gibbs 2010, p28-30). As we shall see, research funding remains less than funds associated with undergraduate medical education in almost every medical school. This might be characterized as medical education having a semi-detached status within the field of higher education; as it is a vocational course, with national political interests and regulation, and largely exempted and insulated from the huge shifts in higher education; particularly, as we shall see, in funding terms.

In addition to these overarching policy influences on medical education, the GMC have become increasingly involved in the detail of the structure, content and delivery of medical education. Having been content to stay in a supervisory, arms-length relationship with medical schools for most of its existence, the GMC have produced three editions of a specification document, detailing standards and recommendations against which it bases its inspection regime.

In 1993, the GMC published the first version of the document "Tomorrow's Doctors" (General Medical Council, 1993). This was an unprecedented set of recommendations for goals and objectives of the undergraduate curriculum. The preamble (point 21, p6) states *the recommendations which follow are designed to promote an approach to medical education and a perspective on its aims that differ substantially from those of the traditional curriculum*. For the first time, *student-centred learning is encouraged* (p7) and the concepts of a core curriculum supplemented by student-selected special study modules are introduced. *Medical schools are aware of the merits of the learner-centred and problem-oriented approaches and are striving towards their adoption, moves which are strongly encouraged* (p11).

The 2003 revision of Tomorrow's Doctors (General Medical Council 2003) goes further in defining the delivery of the new curriculum. *Students must have different teaching and learning opportunities that combine an appropriate balance of teaching in large groups with small groups, practical classes and opportunities for self-directed*

learning (p19), and *the clinical and basic sciences should be taught in an integrated way throughout the curriculum* (p19).

Apart from this palpable push towards a certain style of delivery, Tomorrow's Doctors has defined the objectives of the undergraduate curriculum in a certain fashion. Previously, the doctor was defined by his or her ability to pass examination in various components of the curriculum. Now, the doctor is defined by a range of outcome competencies (General Medical Council 2009, p14-29). In the 2009 version, these are grouped as outcomes 1: the doctor as scholar and scientist; outcomes 2: the doctor as practitioner; and outcomes 3: the doctor as a professional. The desired outcomes have a strong constructivist bent. The doctor is not expected to *know* about human structure and function, but to *explain* normal structure and function. The doctor is expected to *critically appraise* results, not to *understand* them. The doctor should *synthesise* a full assessment of the patient's problems, not just fully *assess* them. The doctor should *acquire, assess, apply and integrate* new knowledge, not just keep *updated.*

This, more directive style of regulation, impacted on the way medicine was taught, and could be expected to have staffing and financial implications. It is probably not surprising that the newer medical faculties have, in general, been more enthusiastic to embrace these education changes than the more traditional universities.

Medical education was, and remains, politically important in the UK. It justified at least three Royal Commissions, as well as high level departmental and inter-departmental Civil Service reports in its relatively short history. It was insulated from major developments elsewhere in higher education, as it was seen more as a workforce issue for the Health Service than a part of tertiary level education of the population. The subject of this study examines the financial policies and money flows underlying medical education during these developments and evolutions.

3.2 History of medical school funding

Most 19th century medical students all over the world were responsible for their fees in full. These fees were generally very high; for example, in 1858 costs for students at London teaching hospital schools ranged from £5604 (in 2010 terms, see methodology in Chapter 1.2.3) to £7912 at Westminster and King's respectively. This represented a major income stream for these hospitals, and probably subsidized their patient care activity.

Duffin researched the cost of medical tuition fees in Ontario, Canada over 140 years, 1860-2000, finding in relative terms (1999 Canadian dollars, C$) that the cost of tuition to the medical student had been stable around C$2000/y from 1860-1980. However, subsidy from government had increased from 0-80% of the medical school's revenue over the same period, thereby effectively doubling the true cost of each student's education. A large rise in the tuition fee over the period 1980-2000 to C$10000/y co-incided with a cutback in government subsidy from 80% to 60% of the school's income.

In a very illustrative analysis, Duffin compares the cost of medical school with the income of a carpenter over this historical period. Between 1880-1960, tuition cost between 300-400 hours of a carpenter's work; this fell to 100-200 hours over the period 1960-1980 before rising again up to 500 hours by 2000. As government subsidy effectively doubles (or trebles) this money, the true cost per student is in the region of 1000 hours of a carpenter's wage. As the working year is of the order of 2000 hours, this is a considerable burden for both student and society (Duffin, 2001).

As government subsidy, directly to medical schools, and then to students and their families became widespread in the 20th century, the proportion of medical schools' budgets from fee income dropped to around 9% only in 1980 (Cooper, 1983). The reasons for the profound social changes in health and education funding within the

20th century are outside the scope of this work, although extremely well covered by the literature (see below, 2.2).

The movement of medical training out of workplaces (teaching hospitals and individuals' private practices) and into universities historically took place in the early 20th century (Cohen, 1968). Previously most medical schools in Great Britain appeared to have no legal constitution, and to exist essentially as associations of teachers, strongly, but informally, linked with a traditional teaching hospital (Newman 1918, p6). This dichotomous responsibility for medical education persists through to the present day; although the university is the responsible body for basic medical training, leading to the primary medical qualification, much of the actual teaching and learning still has to occur within the workplace, the teaching hospital and primary care. Government funding of medical education reflects this split between university and workplace.

3.2.1 HEFCE grant for teaching

Universities in England are funded by two sources for their undergraduate teaching function; the Higher Education Funding Council for England (HEFCE) and by student fee income. Taken together, this can be considered the unit of resource for funding student teaching. Medical universities in Scotland, Wales and Northern Ireland are funded by the devolved governments in very similar ways to HEFCE, although the fee element of their income varies from no fees (Scotland) to lower fees (Wales) to the same as England (Northern Ireland).

HEFCE funds higher education in four areas: teaching, research, the innovation fund, and non-recurrent grants for capital projects and special projects. The teaching grant was the majority of the HEFCE budget before 2013, £4719 million out of a total £7426 million in 2010-11. HEFCE' s funding formula for the teaching grant for medicine was in price group A (clinical years, typically years 3-5) and B (preclinical years, typically years 1-2). These units attracted a cost multiplier of 4

(group A) and 1.7 (group B). For 2010-11, the base price yearly teaching grant for most university students was £3951 per student. Medical students' teaching grants were £15804 (clinical students) and £6717 (preclinical students). Additional to this was fee income, which in 2010 was £3375 per student per year (HEFCE, 2010). In 2013, the student fee has increased to £9000/year, and the HEFCE grants reduced , but this actually increased the disparity between price group A and B and the rest. For 2015-16, HEFCE funding for price group A is £10000 and £1500 for price group B, in addition to the £9000 student tuition fee. Most other courses attract no HEFCE grant at all, and only rely on the student fee (HEFCE 2015). However, the total unit of resource has remained relatively stable, and is £19000 for clinical medicine in 2015 (compare £19179 in 2010).

The underlying formula for calculation of the HEFCE teaching grant was:
The previous year's grant for teaching + allowance for inflation + allowance for approved additional student intake

(Higher Education Funding Council 2008),

This funding was therefore linked to historic funding and to student numbers. In terms of medicine, student numbers were strictly regulated by government, and universities do not have discretion to vary them; this restriction was an exemption from the "core and margin" policy, which comprised the removal of student number controls over highly qualified students (AAB and then ABB at A level) in 2012-14.. Over-recruitment is penalized as any excess students would not be funded by HEFCE and the University would be obliged to absorb their costs.

There were no links between funding and teaching quality. Unlike the research-related funding also distributed by HEFCE , there was no financial reward for improvement in teaching quality, or penalty for deterioration. Ironically, as universities are so dependent on their teaching funds, and HEFCE recognizes this

and provides a stable regime of funding, there is little financial incentive or disincentive in relation to standards in teaching.

3.3 The block grant system

It is important to note that HEFCE made over funds to individual universities as a block grant. This was a continuation of the top-down funding structure used by the predecessor of HEFCE, the University Grants Committee (UGC).

The University Grants Committee (UGC) was first established in 1919 as a Treasury section; it had no statutory remit or powers, no budget and acted purely as an advisory and reporting body. The actual grants to the Universities were made over by the Department responsible.

In the period 1919-1946, the UGC typically was responsible for a third of a University income, with the remainder coming from local government grants and endowments. The first UGC consisted of an academic chairman, ten academic members (mostly retired) served by a civil service Secretary and assistants. Its mode of operation was to visit each university once every five years to discuss and approve the university's financial plans and projections, and then to recommend the full five year grant to government (Shattock 1994, p1-6).

The early workings of the UGC were extremely benign and co-operative. Essentially the UGC represented the interests of the universities, and subject to budgetary constraints, the universities would receive what money they felt they required. There were political limits to what the universities could ask for and receive. Neville Chamberlain, as Chancellor of the Exchequer, wrote in 1936:

If this autonomous character is to be maintained , it is necessary that the economic independence of the universities shall also be maintained … this condition places a

limit upon the extent to which the universities should look to the State as a principal source of revenue (Chamberlain, 1936).

The Education Act of 1944 increased the school leaving age, and increased the potential applicant pool for university education. University grants were doubled, and the UGC expanded its membership to include five practicing academics as well as three members from industry, commerce and secondary education. The amounts of money disbursed steadily increased, typically to two thirds of a university's income.

The actual formula used by the UGC as a basis for resource allocation has never been clear or publicly available (Moodie 1983, Shattock 1994, p145). In terms of projected student numbers, it had probably always been present in the informal system of grant determined by meetings between universities and UGC 1919-46. With expansion of the sector, the additional costs of additional students were likely to have been the main driving force for increased grant. Certainly by 1976, there appeared to be a close fit between the actual resource allocation and one predicted according to a "weighted unit cost' formula, where student numbers, weighted for various subject categories would accurately determine the amount of the grant (Cook 1976). This was not confirmed by comments on this paper by Lord Dainton (then the UGC chairman) or Barnard (a UGC member), although clearly some type of formula was being used, it was never disclosed (Dainton 1977, Barnard 1977).

During 1947-52, the UGC experimented with a preliminary form of direction; nearly 30% of the block grant was earmarked for specific fields of study, thought to be in need of development. Importantly for this work, these included medicine and dentistry; but also agriculture and forestry, teacher education, social sciences, Eastern European, Oriental and African studies. This experiment ceased in 1952, with a return to the block grant system.

The reasons for these back-and-forth changes probably lay in the mixed feelings of

both recipients and donors of the block grants, under the new stresses of expansion of the whole higher education sector in general, and the increasing government role in its financing, justified by national interest. University Vice Chancellors were looking for more direction and guidance, conscious of their new political, rather than academic responsibilities.

The universities…will be glad to have a greater measure of guidance from the Government than until quite recent days they have been accustomed to receive. (Committee of Vice Chancellors and Principals, 1946, in Berdahl R, 1983, p85)
At the same time, Treasury officials were unwilling to take on the role of determining how universities should spend their income.

It has never been the policy of any government that the universities should be subject to statutory regulations or that academic policy should be controlled by the state (Public accounts committee 1949, in Berdahl R, 1983, p88)

Continued expansion of the higher university sector exacerbated these tensions, but preserved the light touch role of the UGC. During 1957-67, student numbers had doubled again and the national grant expanded by a factor of five. The UGC had expanded too, from a staff of 22 to 112. Nevertheless, its Memorandum of General Guidance still stated, in 1968

Each university is free to determine the distribution of its annual block grant in the light of the guidance, general and particular, which the Committee have given…The committee should be consulted before any major new developments, outside the framework set by the Universities' quinquennial submissions….are undertaken (UGC 1968, in Berdahl R, 1983, p93)

Over this period, universities enjoyed unprecedented financial support, with guaranteed income from the state, and removal of existential financial concerns.

Between the second world war and 1980,the state effectively adopted the responsibility of providing higher education as a public service….in practice UGC grants were an almost unconditional subsidy from government which covered three quarters of their expenditure; other government subsidies accounted for most of the rest (Williams 1992).

However, a climate of budget cuts and retrenchment in student numbers 1981-4, led to a more directive attitude, but at the level of selective cutting of the block grant to selected institutions, based on perception of academic strength. The basic nature of the block grant was still stable, although it had moved from the five year grant to an annual sum. There was still a large degree of trust and autonomy built in to its workings. Salter and Tapper attribute this privileged treatment of university funding as founded on a consensus between the universities and the state regarding both the nature of university education and the manner in which their relationship should be regulated, based on an assumption of shared values, presumably between university academics and politicians and civil servants (Salter and Tapper 1994, p120).

Interestingly, the subsequent developments in higher education funding did not change the basic character of the block grant funding. As the UGC gave way in 1989 to the University Funding Council (UFC) and then, after amalgamation with the Polytechnics and Colleges Funding Council, to the Higher Education Funding Council (HEFCE) in 1992, there was much more direction and management of the funding processes by the Department of Education. Subjective judgements of academic quality as a basis for funding gave way to more normative, formula-driven mechanisms of rationalizing funding. Divergence between the university ideal of academic independence and the needs of public accountability by the government produced conflicts in setting up the new mechanisms of funding. However, the nature of the high-trust, high-autonomy block grant remained intact even through this period of major economic recession and political change.

The UGC had always had a predominance of university academics in its membership, and has been characterized as a manifestation of the academy's influence on government rather than government control of academia. Its resource allocation policy stressed the autonomy of the university; consequently the grant allocated to the university would come as a single block, including elements for students' education, infrastructure, basic research and non-recurrent items. The university was explicitly free to use this money flexibly, according to local priorities.

We provide our recurrent funding as a 'block grant', that institutions may spend as they choose; they are not expected to mirror our calculations in their own internal spending. This allows institutions to target spending towards their own priorities, as long as these relate to teaching, research and related activities – the activities that we are empowered to fund. The block grant means institutions can be autonomous and do not have the burden of accounting in detail for their expenditure. (Higher Education Funding Council 2010)

HEFCE is a non-departmental government body (quasi-autonomous non-governmental organization, or "quango" in popular parlance), which is nearly 100% funded by the government Department of Business Skills and Innovation. The legal status of its funding to universities is contractual, and subject to a financial memorandum between HEFCE and each institution. The memorandum again stresses the autonomy of the institution to spend its allocated money according to its own priorities.

Our grants to institutions are to fund activities defined by the Further and Higher Education Act 1992 ('the 1992 Act'). For HEIs these are:

- *providing education and undertaking research*
- *providing facilities and undertaking activities that the institution's governing body thinks are necessary or desirable for providing education or doing research.*

and

Under the Further and Higher Education Act 1992, which established HEFCE, the Secretary of State is not entitled to frame his conditions of grant to us by reference to specific institutions, or to particular courses of study or programmes of research, or to the criteria for the selection and appointment of academic staff or for the admission of students. This is designed to safeguard both institutional and academic autonomy, which are widely regarded as key factors in the success of English higher education (Model Financial Memorandum, HEFCE 2010).

The main funding relating to HEFCE is has a special legal status as grant-in-aid. Grant-in-aid is a government grant that is excepted from two rules that apply to all other government grants: that expenditure must be accounted for to Parliament through the Comptroller and Auditor General's office; and that unspent money must be surrendered back to Parliament at the end of the financial year. This allows a great deal of discretion and variation of the ways in which this money could be spent, without the need for detailed approval.

The National Audit office currently describes grant-in-aid as:
A grant-in-aid/strategic grant is used when there is a high level of trust between the public body and the [organization]. Often, the [organization] carries out work that might be carried out directly by the State in other countries similar to the UK. …… Under grant-in-aid, the management relationship between the [organization] and the public is deliberately ***arm's length****. Typically, the public body gives a steer on its priorities once a year. Monitoring and evaluation of the [organization] by the public body should be light touch. Accountability arrangements should emphasise the accountability of the trustees (or equivalent)* (National Audit Office, 2014).

The money would arrive at the university as a block grant, generally recurrent for 1-3 years before review. This grant came without any meaningful strings attached. In effect, the university management was free to use this grant-in-aid money only limited by the broad plans they had discussed with the UGC/HEFCE. This allowed a

great deal of discretion and variation of the ways in which this money could be spent, without the need for detailed approval. This was historically held to be a good thing, as a mechanism for university autonomy, with different expenditure models generating a diversity of good practice, and supporting the different characters of different institutions (Shattock 2010, Chapter 10, p163-174). There is even less oversight over the use of student tuition fees by the university; any such oversight is restricted to confirming student numbers and attendance.

3.4 Accountability

Although the grant mechanism of HEFCE stresses that universities have autonomy in spending decisions on their block grant, there are some mechanisms for accountability.

a. Through the funding method itself*. The way in which we calculate the funding will influence how institutions respond: all other things being equal, institutions may concentrate their efforts on those activities that will increase their income. This means that we need to be very careful about how we fund institutions. We need to think about the desirable behaviours we want to encourage, but equally importantly we also need to avoid creating unintended incentives through the funding method that could lead to undesired behaviours. Thus the funding method is one means of influencing sector behaviour, but it is not always the best way of achieving a particular outcome.*

b. ***Through conditions of grant****. These make it a requirement on institutions to behave in a particular way, or provide something specific, in return for the grant. If they fail to do so, their grant is reduced. So, for example, if we have provided funding to support additional student numbers (ASNs), then that funding will be conditional on institutions increasing their student numbers accordingly…*

c. ***Through providing information****. Institutions' behaviour may also be influenced by factors affecting their reputation and therefore publishing information can be an effective means of providing accountability. Examples include the performance indicators published by the Higher Education Statistics Agency (HESA), the National Student Survey and the Teaching Quality Information provided on the web..*
(Higher Education Funding Council 2010, section 41; p14-15).

One would expect b) conditions of the grant as rather extensive and demanding. However, they actually make no contractual stipulations; only the general statement that funds should be used for the purposes for which they were given, such as capital grants for specifically approved capital projects. The three mechanisms put forward by HEFCE are rather weak methods of accountability, and potentially allow transfer of funds away from the central teaching mission. For example, although the HEFCE grant has a larger element for teaching, based on student numbers, and a small element for research, based on a selectivity exercise, there is no determination on the relative proportions that the university actually spends on teaching and research. I have examined this in one university medical school (see below, and Fig. 3.2)

In all universities, the main part of the unit of resource is subsumed into salary costs of academic and their support staff, who are also engaged in teaching, research, and sometimes in clinical care. The products of academic clinical medical practice are rather complex, and it is not clear what the interaction components are; whether, for example, research activity positively enhances teaching, or whether teaching positively enhances clinical practice. Of course, the interaction components might also work in a negative direction.

The Transparent Approach to Costing (TRAC) was introduced throughout the UK higher education sector in 1999 as a government accountability requirement. It allocated institutional financial flows into income, cost and surplus/deficit in three

areas, Teaching, Research and Other. All support costs are allocated into the three areas. In 2006, further analysis of costs related to teaching (TRAC-T) was introduced, which required reporting by academic cost centre (CC01 is medicine), and separated costs of HEFCE-funded courses from non-publicly funded courses.

The data which underlies TRAC broadly comprises of

- Financial data (expenditure and income)
- Academic staff time allocation data (in order to allocate this cost to three areas, Teaching, Research and Other) by self-report or formal job plan
- Space data in order to allocate space costs to the three areas
- Space weighting, to reflect different maintenance costs
- Staff and student numbers and other cost drivers including information technology and library

In respect of TRAC-T, the same data for each course in the university produces an average cost of teaching a full time, HEFCE funded student in that subject (also known as subject-FACTS). This represents full economic costing, and should therefore be a robust measure, especially over a sample of institutions. (TRAC Development Group, 2014)

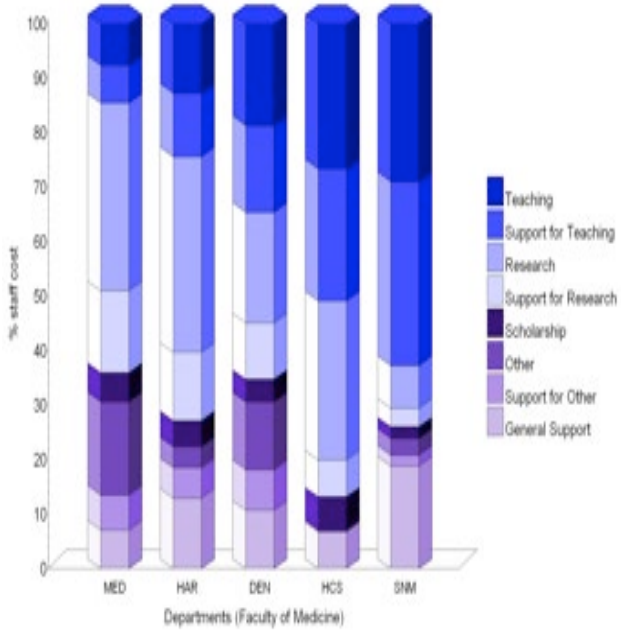
The TRAC process is subject to sense checking, and to formal audit. It is important to note that this auditing is limited to process, that is, to ensure that the return is accurately calculated. There is no "target" for what funds are spent for which activity, and no target surplus or deficit in any of the three TRAC areas.

I have used TRAC data from a single medical school to illustrate the relatively loose accountability of the HEFCE teaching grant, which is intended to cover undergraduate medical education. Figure 3.2 shows the result of a TRAC academic time allocation study within the medical and health related faculties of the University of Sheffield in 2008-9 (source: Finance Dept, University of Sheffield. Fig. 3.2). This shows that around 7% of medical staff time (left column; the other

columns represent orthoptics, dentistry, speech science and nursing) is spent in teaching activity, and around another 7% of time in supporting activities related to teaching, making a total of 14% of self reported staff time in teaching. This figure includes teaching on postgraduate courses, and represents an overestimate of staff time on undergraduate medical student teaching. During this period, HEFCE teaching grant and undergraduate student fee income to the Medical School amounted to £18.4 million out of a total of £58.2 million, or 32% of the School income (source: Vina Khan, Faculty Finance Manager). This figure is net of central university overheads, which were already taken out. The grant was tied to student numbers, and was not tied to any of the other products (research and clinical care, which are also separately funded by HEFCE and by the NHS) of medical academic activity. There is a clear disproportion of 32% of income paying for 14% of academic activity, even allowing for departmental overheads. In contrast, research income (£17.1m) constituted 29% of income, but paid for 50% of academic activity.

It must be understood that this type of usage of HEFCE grant and student tuition fees is still within the rules of the block grant to the Universities. Although the funding is in the name of student teaching, and is related to the numbers of undergraduate students, the money was intended to be used flexibly according to the priorities of the University's other missions as well as student teaching. As long as student teaching was done to an acceptable standard, there was never any understanding that a particular proportion of the teaching income should be allocated to the nominal purpose.

Fig. 3.2 Self reported time spent by Medical school faculty on academic activities



This cost analysis is from a single medical school, and is sourced from their annual report. However, it appears to be fairly typical of the range of UK medical schools. A group facilitated by JM Consulting, but containing mostly medical school academics and university administrators, reviewed the financial premium for clinical subjects (medicine, dentistry, veterinary medicine) over the period 2009-10, and concluded that only an average of 12% of costs were related to academic staff time devoted to teaching (Fig. 3.3, JM Consulting, 2012). This paper looked at 6 medical schools, reporting the cost centre CC01, which is the whole medical course, both clinical and preclinical parts. Using TRAC data, they concluded that even with appropriate support costs allocated to teaching, the majority (63-92%) of costs reported were research-related; with only 5-26% of costs attributable to teaching. This proportion, low as it is, is actually likely to be an overestimate. It is noteworthy that the group made complained sharply about the ways in which medical schools estimated the TRAC-T costs, but tellingly, only in one direction: to inflate the costs of teaching, for example, by including the costs of clinical service within teaching. (JM Consulting 2012, p23, p33 and appendix C, p74-5)

Fig.3.3 Analysis of research and teaching expenditures of 6 UK medical schools

analysis of costs in CC01							CC01
Institution	Research	Other	----------Teaching----------				Total
			NPFT	non-HEFCE-Fundable PFT	non-subject-related	HEFCE-fundable subject-related	
a	66%	4%	2%	0%	1%	26%	100%
b	81%	7%	2%	0%	1%	9%	100%
c	83%	7%	1%	0%	1%	7%	100%
d	92%	1%	1%	0%	0%	5%	100%
e	71%	8%	3%	0%	4%	14%	100%
g	63%	8%	3%	6%	2%	18%	100%

Furthermore, the same paper examined the subject-FACTS costs for medicine. It was concerned with the "relativities" of funding of medicine (as well as dentistry and veterinary medicine) over funding of "normal" university course. The group found that once corrections were made to the medical schools' implementation of TRAC, the cost relativity should be about 2:1; i.e. twice as costly as a standard university course (JM Consulting, 2012, p2). The HEFCE grant at that time was based on a relativity of 1.7 for preclinical and 4 for clinical medicine; over a typical five year course, this would translate to an overall relativity of just over 3:1.

Therefore, TRAC data from 2009-10, over a sample of medical schools, show that the grant paid was three times the grant paid for a standard non-medical higher education course, while the full economic costs of medicine was about twice that for a standard course (although these costs might be overestimated). Therefore, the actual cost of medical teaching was at least two-thirds, 66%, of the teaching grant from HEFCE. The surplus generated would be around 33%, or £6853 per student per year. From the TRAC data on academic time allocation, it is likely that this surplus funded research activities.

Boyer has criticised the dominance of the research function of the academy, particularly the discovery research that is output in peer-reviewed primary

journals. He was writing in a U.S. context, across the broad range of higher education providers from research-intensive universities to 2 year community colleges, and the changing priorities for the general academic faculty.

In the current climate, students all too often are the losers. Today, undergraduates are aggressively recruited. In glossy brochures, they're assured that teaching is important, that a spirit of community pervades the campus, and that general education is the core of the undergraduate experience. But the reality is that, on far too many campuses, teaching is not well rewarded, and faculty who spend too much time counseling and advising students may diminish their prospects for tenure and promotion.
Faculty are losing out, too. Research and publication have become the primary means by which most professors achieve academic status, and yet many academics are, in fact, drawn to the profession precisely because of their love for teaching or for service - even for making the world a better place. Yet these professional obligations do not get the recognition they deserve, and what we have, on many campuses, is a climate that restricts creativity rather than sustains it (Boyer 1990, Preface, xi-xii).

The methodology for Boyer's influential study was restricted to gathering the opinions of a sample of faculty members on their professional life and values. He surveyed from a sample of different types of U.S. higher education institutions, and although medicine is a postgraduate subject in the US, all his tables include data from staff from health sciences departments, distinct from biological and other sciences. (Boyer 1990, Appendix A, pp 82-126) Although Boyer's work was intended as a wide-ranging survey of the entire U.S. higher education scene at the end of the 20th century, I consider that almost all of the insights expressed are still pertinent to our consideration of UK medical teaching. The teaching/research tension is universal in higher education, and it is unlikely that medical schools in the UK are an exception.

There is some objective evidence that research is more important in promotion criteria than teaching. Parker (Parker 2008) studied the promotion criteria of UK

universities to three levels; senior lecturer, reader and professor. He found that research and teaching were formally treated equally in promotion criteria to senior lecturer, but that was not so for the more senior grades. Only 44% of universities formally recognised parity between teaching and research for promotion to professor; and for the older, pre-1992 universities, (which include virtually all universities with medical schools) this was only 37%.

Jenkins studied the impact of two external audit and inspection systems on the relative importance of teaching and research in UK university geography departments. He makes the important point that the research assessment exercise has significant impact on the allocated income, by stratifying institutions and allocating more or less research funds to each institution according to a predetermined formula. In contrast the Teaching Quality Assessment, although containing a provision for the withdrawal of funds, does not stratify institutions, and there is no financial differentiation according to teaching quality. Therefore, he argues, the rational professor will recognise this disparity, and maximise their benefit.

since the marginal financial rewards for improved research ranking are so much higher than extra funds which can be obtained from improved teaching, all universities will tend to concentrate resources on improving their research, which will defeat the objective of concentrating research funding, at the same time to encourage a relative neglect of teaching (Jenkins 1995).

In contrast to these studies (Boyer 1990, Jenkins 1995), I have tried to look into how the funding that accompanies undergraduate students is actually spent. I believe that this is a necessary objective baseline to back the mainly subjective arguments put forward by Boyer and Jenkins. It appears that the proportion of total income related to undergraduate student teaching is between 1.5 and 2 times the proportion of staff time devoted to it. If we accept that there is likely to be an overestimation of staff teaching time, as this is self reported and also includes teaching on postgraduate courses, the actual proportion is likely more than double.

The most parsimonious interpretation is that student teaching is undervalued (or overpaid) in the medical school. TRAC indicates that medical academics are being paid for teaching, but are diverting their time and effort into other areas, most likely into research.

3.5 Resource allocation within Medical Schools

Understandably, medical schools are not very willing to reveal details of their internal resource allocation. I have been able to review historical and current documents in relation to resource allocation in two medical schools in England.

3.5.1 Historical allocation plans

I have researched the archives of the London Hospital Medical School, Whitechapel, which has unusually complete records dating back to its foundation in 1783, when members of the London Hospital proposed a medical college. Within these foundation proposals is the statement;
the Hospital would make no financial contribution nor would it allow lecturers' private pupils into the wards.
The seeds of the dual funding system of education provider and healthcare provider were sown even at the founding of the medical college.
By 1879 the House committee of the Hospital governors was already taking a hand in regular financial support of the College. At that time, the college accounts were very straightforward, comprising a single sheet of foolscap paper.

In 2010 terms, (see methodology, chapter 2.1.3) the income of the Medical College was almost entirely from students' fees and amounted to £364800. Of this amount, a direct grant from the hospital was £27760.

Allocation seemed to be largely staff costs, after paying off building debts and interest. The cost of warden, clerk and other wages (administrative staff) was

£27800 and the estimated costs of anatomy, physiology, surgery, comparative anatomy, curator of pathology, practical medicine and examiner totalled £88960. The cost of teaching students by this calculation totalled 23% of gross income, generating a rather healthy surplus in this year.

3.5.2 Modern allocation plans

The income streams to medical schools in the modern era are used to support their complex missions of education, student and staff support and research. Although there is not much overlap in the processes and outcomes of these separate missions, the staff who perform them are usually the same people.

The University of Sheffield medical school had a total income of £58.2m in 2011-12 of which around 57% or £33.2m was associated with the undergraduate medical course. This sum was top sliced by the University to fund "central" costs such as library, sports, computing and IT, buildings and spaces. The remaining £16.6m was divided up between the departments of the medical school according to a formula that took into account the existing salary cost (70%) in the department and the department's contribution to "growable income" (30%). Growable income was defined as "*other areas of activity to support financial income growth*" but in practice was restricted to postgraduate teaching and research income. The medical school is currently trying to incorporate contribution to teaching activity as part of the formula for distribution of the income generated by teaching (source: School Management committee 2013).

This scheme is recognised as part of sensible university management. Shattock develops the ideas of Burton Clark and the "entrepreneurial university" (Clark 2008). Essentially the funding pattern of British universities from government was originally not a fully funded model. That is, the costs of the university are not entirely met by their government grant, resulting in a deficiency model of

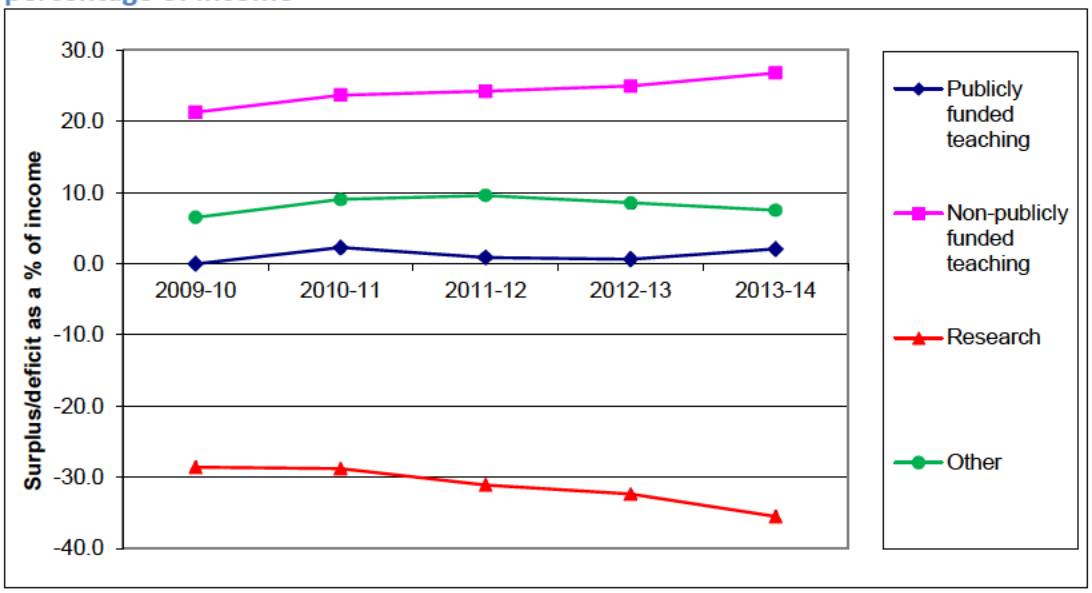
government funding. This deficiency had to be made good by other activities of the university, principally research funding, or taught courses outside the basic government grant.

Even after the move to a fully funded model of state funding for universities after 1946, it became clear that

It is impossible for a research intensive university to maintain national, if not international, competitiveness, by relying on state funding alone (Shattock 2010, p54).

Therefore other sources of funding to support the research mission were needed. It would be logical to start with getting research value from staff being paid for the teaching mission; and indeed most university medical schools employ academic staff on research and teaching contracts. According to Mario Ferelli, who is is the director of analytical services for HEFCE, TRAC data across the entire higher education sector indicate that "research activities run at a loss relative to research funding, and this is made up from teaching funds" (Ferelli, 2015). This is supported by the TRAC reports from HEFCE, which show that across the whole sector, teaching costs are around 7% lower than teaching income, in contrast to research costs which are much higher than research income (Fig. 3.4, HEFCE 2015).

Fig. 3.4. TRAC data from 2009-14 showing surplus/deficit of academic activity costs as percentage of income



There are some staff on teaching-only contracts, and in some universities and departments (but not in any medical schools), the teaching load is so great that effectively there is little available time or resource for research. In the medical schools, it is taken as given that academic staff will generate funds for the University, so teaching occupies a lesser space; and a space that can be generously interpreted, such as running postgraduate courses, which although small in scale, represent revenue outside of government control, and which could grow without restriction. It is easier to demand more research activity from university paid staff on research and teaching contracts when the clinical teaching, which makes up most of the course, takes place outside the university; is mostly delivered by NHS staff who are not university funded, and has a second funding source, SIFT, which is explicity meant to cover these costs.

3.6 Teaching Quality

The Quality Assurance Agency is responsible for oversight of standards of Higher education in the UK. It discharges this responsibility through Institutional Review (known as Institutional Audit 2002-2011).

The process consists of a team of auditors who examine returns from the institution, including a student report, and then visit the institution twice, to discuss the briefing documents and then to explore particular areas in depth.

The purpose of the Review/Audit:
audit teams will make judgements on:

- *the confidence that can reasonably be placed in the soundness of the institution's present and likely future management of the academic standards of its awards*

- *the confidence that can reasonably be placed in the soundness of the institution's present and likely future management of the quality of the learning opportunities available to students.*

An audit team's judgement is not about academic standards as such, but about the way that the institution ensures that its academic standards are secured by the work of its examiners, internal and external, judged against the reference points of the Academic Infrastructure. Nor is the team's judgement about the quality of learning opportunities as such, but rather about the way that the institution ensures that the learning opportunities available to students are of an appropriate quality, with reference to the guidance in the Academic Infrastructure. In this context, 'learning opportunities' is taken to mean the combined effect of the programmes of study and academic and personal support for students (Quality Assurance Agency 2009).

The Institutional Review process that replaced Audit in 2011 is not much changed. *The core aim of Institutional Review (England and Northern Ireland) is to examine whether universities and higher education institutions:*

- *provide higher education qualifications of an appropriate academic standard and a student experience of acceptable quality*
- *exercise their legal powers to award degrees (where relevant) in a proper manner.*

The review team makes judgements on how the institution:

- *sets and maintains threshold academic standards*
- *manages the quality of students' learning opportunities*
- *enhances its educational provision*
- *manages the quality of its public information (from 2012-13).*

(Quality Assurance Agency 2009).

It is evident that the focus of the Review/Audit is the quality assurance mechanism for education rather than the quality of education. It is a whole institution report, and there are no reports specific to medicine that can be accessed.

The General Medical Council has a Quality Assurance of Basic Medical Education (QABME) process, as it is tasked with licensing medical graduates for practice. The process is very similar to the QAA. The medical school submits a return, and is visited by an inspection team, usually over 6 non-consecutive days. Judgements are made against the GMC's published standards in its Tomorrow's Doctors document. Good practice is highlighted, and improvements in deficient areas are either recommended or mandated. The process does not include inspection of TRAC-T data for the medical schools.

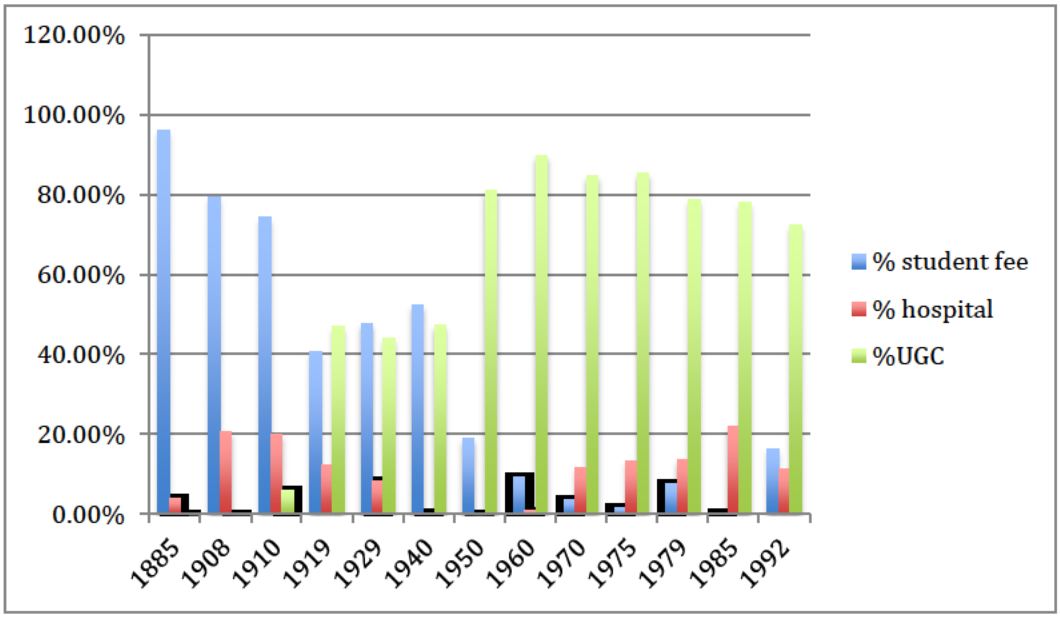
These processes are supportive of institutions and do assure a certain minimum standard. Their main drawback as oversight processes is that they have no effect on the financial reward to institutions for their teaching. They do not have any remit to examine the financing of teaching.

3.7 Relationship with the Healthcare provider

We have seen that the London Hospital governors were drawn into the financial support of the Medical College from an early stage, despite their initial intention to keep their distance. After the inception of central funding for education through the UGC/HEFCE, this situation actually increased.

Fig. 3.5 shows the relative percentage of the income of the London Hospital Medical College (LHMC) from student fees, hospital and UGC/HEFCE over a century 1885-1992. This was compiled by myself from the financial records of the College (LHMC, MCF/2/6-MCF/2/30, St. Bartholomew's Archives, London)

Fig. 3.5 Relative contributions of student, hospital and government sources to the income of LHMC 1885-1992



During this time students' fees changed from self-funding to being paid by local authorities (reversion to self-funding of fees, albeit assisted by a loan system, started in 1998). The hospital always funded the College, at first by direct grant, and after 1960, through a payment for "services rendered" by staff paid by the University.

The dual funding of undergraduate medical education raises the question of who does what for students. The traditional system, when students are based in the university for the first preclinical years, and then in the NHS workplace for the final clinical years would appear to resolve this question.

However, examination of the financial arrangements reveals a different pattern. As detailed above, clinical students were funded by HEFCE in price group A, which is 2.4 times greater than preclinical students, and 4 times more than the standard university student. However, during this period, medical students were on clinical placement for 50% of their time, compared to <10% during the preclinical period.

(Fig. 3.6) There were no other activities which would take up university time, such as dissertations to mark, in the clinical years. The only extra cost appeared to be arrangement of clinical examinations. Therefore, the existence of a premium for clinical students was counterfactual, and remains so to this day, as they are mostly taught on clinical placement in the NHS. If anything, there should be a preclinical premium, when students are mostly in the university environment.

Fig. 3.6 Relative time on clinical placement and lectures for students in 5 year undergraduate UK medical courses 2012 (calculated from Key Information Sets data on Unistats)

Medical school*	% time in lectures, seminars					% time in clinical placements				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5
Cambridge	66	67	41	30	10	0	0	33	65	85
UEA	34	33	33	27	15	37	40	40	48	58
Glasgow	28	34	25	15	15	2	13	22	46	46
Keele	43	43	29	27	11	3	3	56	65	76
Oxford	31	40	37	37	12	0	0	28	63	68
King's	45	42	11	16	13	3	2	68	56	67
Nottingham	32	34	12	10	17	0	0	12	80	65
QMUL	62	53	21	19	15	0	12	64	70	84
QUB	33	32	13	22	4	3	5	52	68	84
Birmingham	36	32	30	33	25	5	6	45	55	58
BSMS	33	34	12	17	10	3	3	46	35	40
Cardiff	54	44	32	10	2	5	11	43	72	68
Dundee	54	42	0	0	41	9	25	71	82	23
Edinburgh	46	36	20	33	8	0	6	69	45	72
Peninsula	36	42	47	64	17	2	4	28	27	70
HYMS	56	50	27	26	10	11	22	59	61	79
Imperial	31	34	9	7	6	0	8	79	75	60
Sheffield	60	89	25	12	15	20	2	71	75	74
St George's	85	85	50	10	5	0	5	30	70	70
Leeds	70	64	22	16	4	8	12	55	64	79
Liverpool/Lancs	27	16	13	5	0	7	38	47	95	100
Manchester	25	33	24	33	12	0	0	30	27	48
Aberdeen	30	36	22	13	11	3	9	11	64	62
Newcastle	33	30	28	22	19	0	0	50	45	55
Southampton	45	45	10	30	10	10	10	80	40	80
Bristol	35	25	14	30	7	2	10	52	44	91
average	43.5	42.9	23.4	21.7	12.1	5.1	9.5	47.7	59.1	67.8

*UCL, St. Andrews and Leicester excluded from this table, due to incomplete data

The clinical premium has been justified as constituting a "knock for knock" arrangement with the NHS. This means that clinical academics provide patient care for NHS patients, but are paid by the University. NHS staff provide medical student education, but are paid by the NHS. Universities and the NHS generally were not seen as cross-charging and quantifying the work done by one group of staff for the other institution. As the numbers of NHS staff far exceed the number of clinical academics, this arrangement was recognized as favourable to the universities; but justifiable in terms of other, intangible benefits accruing from university involvement in the health system. In practice, as we see from the London Medical College accounts, the hospital did actually pay for "services rendered" over the entire history of college, but the Medical College never paid for the other knock.

The knock for knock system has recently been further disrupted in some medical schools. For example, following the introduction of the new consultant contract in 2003, some universities have reclaimed payment for clinical sessions worked by academics from the NHS, which can amount up to half the full salary. This is not counterbalanced by the NHS reclaiming teaching done by NHS staff for the University. The reasons for this are discussed in the following chapter, and lies within the unusual nature of NHS funding for undergraduate education.

3.8 Conclusions

Universities are the bodies responsible for organizing and certifying medical education. Historically this has been a well-paid area for the provider, and expensive for the consumer.

Modern undergraduate medical education is highly rewarded for providers. There is a dual system of payment to universities and the NHS, but the actual split of educational work is unclear. Universities derive surplus benefit from their teaching-related undergraduate medical income, in three significant ways.

First, medical academic staff devote proportionately more time to other, non-teaching endeavours, mainly research. Secondly, the existence of the clinical premium in HEFCE payment is unsubstantiated, and represents a double payment for clinical studies. Thirdly, the knock for knock arrangement between universities and the NHS is highly favourable to universities; its demise in some locations further accentuates that advantage, and its acceptance by the NHS is difficult to explain.

I undertook to address some questions about HEFCE funding, from Chapter 2.4.

I. How is the unit of resource, including the HEFCE teaching allocation spent?

This allocation is given as a block grant, and spent according to the University's priorities. Around 50% is top sliced by the central University for costs relating to all students; buildings, libraries, IT. The remainder is mostly spent on staff salaries.

II. How does this contribute to the education of medical students?

A proportion of staff are required to administratively run the medical course. University medical academics appear to have only a minority commitment to education in their day to day jobs.

III. Are there incentives for improvement in the education of medical students?

Universities rely on reputation as their unique selling point. There is a clear incentive to deliver high quality teaching as part of this. However, high quality teaching is rewarded equally to low quality teaching. It is uncertain how much their teaching effort actually impacts on universities' reputation, but this is discussed further, see Chapter 8.1 and 8.2.

> *Reputation measures are largely invalid as indicators of educational quality. Institutions with an existing high reputation may have a vested interest in resisting the introduction of more valid indicators of educational quality* (Gibbs 2012, p.13).

IV. Are there disincentives to improvement in the education of medical students?

The unit of resource (HEFCE plus fee) income is fixed, and medical student recruitment is highly regulated by government, and generally fixed to a number. If Universities financially prioritise areas of growth, this would lead to a diversion of

funds from the static areas to the growth areas. This might not harm the University's reputation at least in the short term, and is unlikely to be picked up in the current system of teaching quality assurance either by the QAA or the GMC. Certainly, there would be no financial penalty for diverting funds from student education to other strategically prioritized areas.

Chapter 4

Funding of Medical Education in the NHS

4.1 Hospitals and educational funding

We have seen that undergraduate medical education is dually supported, with funding streams in both the universities and in NHS workplaces.

Up to the inception of the NHS in 1948, most medical education took place in voluntary hospitals, which were independent charitable bodies, which, although well known and often prestigious, were often teetering on the edge of bankruptcy. These hospitals were funded from mixed sources, including subscriptions from donors, local government grants and public charity.

We have seen in Chapter 3 that there were payments from hospitals to the Medical Colleges, both as direct subsidy and for clinical services rendered by University staff. There do not appear to have been reciprocal payments from the Medical College to the hospital for teaching of students on the wards.

However, hospitals did benefit from students, who would pay a separate fee for clerkships (on medical wards) or dresserships (on surgical wards). These posts were part of the hospital hierarchy, and had privileged access to interesting patients, and contact with the senior hospital staff, and therefore were much sought after. The cost of such a post was £62100 (2010 conversion) at St. Bartholomew's in 1848 (Newman 1957, p121). For a larger sum, around £82220, appointment as a resident pupil was available, which included all charges and allowed first claim to forthcoming appointments at the hospital. This system of bought appointments is not shocking in an historical context; for example, commissions in the army were bought and sold at higher prices contemporaneously. It was thought to be a very notable reform for dresserships to be appointed on merit rather than through the market, such as at Guy's Hospital in 1853.

Students also paid fees to their teachers. Before the organization of the medical colleges, these fees were paid directly, as from apprentice to master. This could be quite expensive; in 1830 James Paget was apprenticed to a doctor in Great Yarmouth for five years for the sum of £7332 (2010 conversion), and in turn took a "house pupil" when setting up practice in 1836 at £734 a month! Joseph Carpue charged £1322 (2010 conversion) for each student attending his anatomy course in Leicester Square, London in 1830; and was able to run three courses a year ! The surgeons at most of the London schools pooled their students' fees and collectively signed their certificates (Newman 1957 p46, Cope 1966, p96).

The emergence of the London teaching hospital as an elite was an 18th century phenomenon. In addition to the ancient, monastic foundations of St. Bartholomew and St. Thomas'; Westminster, St. George's, Guy's, the London and the Middlesex were founded by boards of laymen, by donation and subscription. The motive was mostly philanthropic, but also tied up with power and political influence.
Admission to [the hospital] was by governor's letter….Being on the board might help one to climb the social ladder. It could be good for business. Besides, it was often convenient to exercise one's privilege and get a patient in (Clark-Kennedy, 1966, p111).

As we have seen, teaching medical students could be a substantial source of income to senior medical men. There was also the added allure of reputation; as most medicine was empirical and founded very much on accepted practice, having lots of students added to the fame of the teacher; and also provided further income in the shape of referring private patients seeking more expert opinion or treatment.
[in 1886] specialists' reputation rested upon tutelage of pupils, social connections or entrepreneurial activity as much as medical expertise (Cherry 1996, p31).

The self-interest of powerful and philanthropic laymen and doctors worked together to draw students into the London hospitals. Student fees paid both to the hospitals and to their teachers were a major part of their incomes (see Chapter 3,

Figure 4). As these institutions grew through the 18th and 19th centuries, they attracted ambitious medical men who saw opportunities to increase both income and reputation; their pupils occupied staff posts in the hospitals unpaid, or even bought such posts in anticipation of later advancement; and their teaching function became inextricably linked with their prestige as patient care institutions. A similar dynamic contributed to the rise of medical schools and teaching hospitals outside of London, and even in the United States.

In the end, the relationship between teaching hospital and medical college became very complex, with myriad individual variations and exceptions. They were manned by much the same group of professionals; appointments were generally to both hospital and school; similarly, the junior teachers in the medical schools would expect advancement to the staff of the hospital.

This interaction was mutually beneficial. Although the prime object of the governors might be the care of the sick poor and of the medical school the instruction of pupils, the blending of interests was of great advantage to both. A teaching appointment attracted able men to the hospital and kept them there in spite of the increasing demands of private practice. Students acted as unpaid assistants and they would remain as junior staff, without pay, after qualification. Honorary staff might be more punctual for their rounds if students were waiting, and the time spent by students taking histories led to thorough care of patients and kept the senior staff on their toes (Rivett 2013, p61).

It is important to note that the London teaching hospitals, in contrast to teaching hospitals outside London, were only loosely affiliated to their parent University, and therefore functioned really as small independent universities. This was also historical; almost all of the teaching hospitals and medical colleges predated the rest of the future University colleges in London; and the primary medical qualification up to the 20th century was conferred by the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries; all remnants of the mediaeval guilds. In fact, the London teaching hospitals were only constituted officially as

Schools of the University of London in 1898. Even so, in 1912, it was reported that less than one third of the students at the London teaching hospitals were actually matriculated undergraduates of the University of London. The remainder were essentially freelancers, sitting the extramural qualification exams, or occasionally, transferring to other provincial universities, which had less stringent requirements.

A Royal Commission was set up in 1909-12 under Haldane, primarily to rationalize the various components of the University of London. It did recommend a single faculty of medicine for the University, but its work was laid aside for the Great War, and the status quo of independent teaching hospitals persisted.

As part of the National Health Service Act 1948, these hospitals were recognized as University Teaching Hospitals, and exempted from administration by Regional Boards that ran all other hospitals. They were provided with Exchequer grants in respect of medical student teaching ; this was first planned in the Goodenough report into medical education prior to the NHS Act. *Teaching hospitals are indispensable to medical teaching and research, and they should receive grants from public funds towards meeting the expenditure, both recurrent and capital, in providing facilities for teaching and research* (Goodenough 1944, p243)

Goodenough recommended a grant of £24.18m (2010 conversion) for each teaching hospital in advance of a uniform accounting system. This amount has remained remarkably consistent from 1948-2013. Thereafter, the amount of recurrent grant would be subject to application from individual medical teaching centres; in practice, this led to ad hoc variations around this initial figure (Goodenough 1944, p246).

4.2 SIFT

The University teaching hospitals were placed on the same basis as all other hospitals in the NHS re-organisation of 1974. The NHS Resource Allocation working party (RAWP) reported in 1976 to determine the allocation formula for the teaching hospitals. This formula was very explicitly set out, unlike the funding formula for resource allocation from the UGC to the universities at this time.

This funding line was known as the Service Increment for Teaching (SIFT), which was disbursed by the Department of Health, through intermediary authorities to the hospitals and other clinical locations.

The total budget for SIFT was very considerable (£728million in 2005), and could typically translate into over £20million per year income for a central teaching hospital Trust, or roughly 5% of total income. In the context of a single NHS teaching hospital, it was by some distance the largest component of its Education and Training income (Fig. 4.1). For the numbers of medical students, this was remarkably generous, and contributes to the perception that it costed the UK taxpayer £200000 to train a doctor. These were very large amounts of money in higher education terms.

Fig. 4.1 Education and Training Budget statement, University College London Hospitals NHS Foundation Trust 2011-12.

University College London Hospitals NHS Foundation Trust
Mandatory Education and Training Services: 2011-12
MARSID UCLH
NHS Code RRV

Commissioning body	Educational body	Contract Length (Years)	Expiry date of contract	Student group	Type of training	Number of Students	Contract Value (£'000s)
NHS London	UCL EDI	1	31/03/2012	Medical	EDH Dental SIF	Activity related	3723
NHS London	General Dental Council	1	31/03/2012	Prof. Comp. to De	EDH MPET Nur	50.17	1167
Thames Valley WDC	General Dental Council	1	31/03/2012	Prof. Comp. to De	EDH Dental Th	10	670
NHS London	BICNM	1	31/03/2012	Nursing + Midwife	NMET funded B	Facility	312
NHS London	UCL UC+RF SoM	1	31/03/2012	Medical	UCLH SIFT	189.52	22134
NHS London	UCL UC+RF SoM	1	31/03/2012	Medical	UCLH MADEL -	404	15263
NHS London	UCL UC+RF SoM	1	31/03/2012	Medical	PGME facilties -	Facility	1208
NHS London	South Bank University	1	31/03/2012	Nursing and Midw	NMET N+M sala	51	455
NHS London	Royal Pharmaceutical Society	1	31/03/2012	Pharmacists	NMET Pharmac	16	116
NHS London	N/A	1	31/03/2012	Non-clinical	General CPD/NVQ funding		564
DoH	N/A	1	31/03/2012	Medical	CEA salary funding		5940
NHS London	UCL UC+RF SoM	1	31/03/2012	Medical	Flexible Trainee	-	628
						Total	52180

The formula used to calculate SIFT could be regarded as form of weighted unit cost, similar to the calculations used in funding University higher education (Chapter 3). This remained, from start to finish, the fundamental method underlying the SIFT allocation (Clack 1999).

SIFT per student was calculated by the basic formula;

actual costs – "baseline costs" = excess costs

excess costs/student numbers x 0.75 = SIFT per student.

The actual costs were the global existing budgets of the teaching hospitals. Baseline costs represents the hypothetical cost of running that size of hospital if it were not a teaching hospital, and this data was derived from a survey of the running costs of 45 district general hospitals (the 45 sample), adjusted upwards for the costs of teaching hospitals' case mix being more specialized and expensive that those of district hospitals. The adjustment was made by a separate study of the costs of

specialty-related treatment estimated from a large sample of data in 1980 (Bevan, 1987).

The effect of this formula was to attribute excess costs to student education. It was clear that the baseline and excess costs in this calculation represented the entire cost of running a hospital, far in excess of the likely direct costs associated with their function in student education.

Strikingly, the excess cost figure was found to differ widely between medical schools, from £31000 per student (Westminster) to £2200 per student (Leeds). RAWP averaged out this issue by taking the median excess cost as the basic SIFT calculation, and attributing 75% of this excess cost to the cost of teaching students.

The way in which this 75% figure was derived is illuminating. The 75% figure was justified by a further study, known as the York study. Culyer used a sample of 268 hospitals, analyzing costs, complexity of case mix, and student numbers. Using a regression model, they found that each student present in the hospital increased the marginal cost of a complexity-adjusted patient case by £3557 (1970 prices), which equated to 75% of the actual marginal costs observed in this sample (Culyer 1978). What this calculation was meant to illustrate was never clear. Culyer had pre-judged that only two variables, students and case complexity, were responsible for the variation in cost per patient; and using a circular argument, he showed that his formula for calculating complexity accounted for only 25% of the variation, so students must therefore account for the rest. In modern terms, this exercise lacked both face and construct validity.

Thus SIFT was a kind of weighted unit cost, used for remunerating hospitals for their student teaching function. The examples given were increased time in clinics per patient, leading to lower patient turnover; increased use of laboratory tests and medical imaging for teaching purposes, and the use of building space for student teaching. The element of salaries for student teaching was always left vague.

Although academic salaries accounted for typically 30-40% of UK university expenditure (Shattock & Rigby 1983, HESA 2015), it has never been clear what proportion of a NHS doctor's salary was represented by the SIFT grant.

However, the weighting of the unit cost was performed in order to justify the increased costs of teaching hospitals that existed in one moment in time, around 1976. It never represented direct costs of student education. It existed to justify and perpetuate the status quo at that time. Whatever historical costs existed up to that time were absorbed into the funding formula, because that was expedient to do so at the time.

Various challenges have been forwarded against the formula for calculating SIFT, centering on the samples used for baseline costs, and the statistical method for regression. RAWP believed that the calculation erred "*on the side of generosity*" and this is borne out by the lack of criticism from the recipients of this funding. What little criticism there was focused on the 75% multiplier rather than on the fundamental basis of the estimation.

However, even in this descriptive introduction, the basis of the SIFT estimation cannot pass without comment. Bevan stated that the more accurate the model for hospitals' overall costing, the less the residual cost that could be attributed to their teaching function (Bevan, 1987). Therein laid the fundamental assumption at the heart of SIFT.

4.3 Assumptions of SIFT estimation

SIFT was calculated on the assumption that the existing excess costs of teaching hospitals in 1976 were 75% attributable to their teaching function. Culyer explicitly derived this formula using the number of students per case as a denominator in the calculation, thereby assuming a linear relationship between the number of students in a hospital and its increased costs (Culyer 1978).

This assumption was simplistic from the outset. Many other factors may possibly have contributed to their excess costs; from "excess" staffing levels and pay levels, to excess equipment costs, or costs of historic buildings. Modern accounting conventions could contribute to excess costs, as many of these hospitals are in the centre of large cities (mostly in central London); and even though many hospitals have outright ownership of their sites through their ancient foundation endowments, accounting rules force them to account for the opportunity costs of renting their sites for some other business, and therefore artificially paying that hypothetical rent for the city centre site that they own. Attribution of these types of costs to student education could not be justified.

We have seen the development of teaching hospitals, with student-related income from fees and government exchequer grants fuelling the rise of an elite of hospitals (above, 4.1). It was not very surprising that this excess income and cost should be codified as a budget line which was nominally for student education, but in reality could cover many other types of excess costs.

The SIFT allocation was better considered as a subsidy for the teaching hospital in all its many aspects and functions at a single moment in time. It necessarily followed that the teaching hospital, as it was in 1976, was seen as a desirable institution to be preserved, over and above its function in education of medical students. What were those "other" functions?

Perrin elaborated, from his viewpoint as a non-medical professor in public sector accounting, on the justification for the extra costs of teaching hospitals. He referred to their *capability to lead medical innovation and set the example of being "centres of excellence*. He outlined the possibility that *the senior staff of teaching hospitals may feel an obligation, or at least a natural desire, to bring into operational use the fruits of their research ……. that are new, complex and relatively costly. Frequently it cannot be known until later how beneficial or cost-effective these innovations have been, but*

they are possible only because of the higher level of resource available in the principal teaching hospital.. He also put forward *an alternative explanation of the costliness of centres of excellence is that having always enjoyed a higher level of financial provision, they have become self-indulgent in their provision of space, staff and support facilities, and may provide treatment sometimes more sophisticated and costly than patients actually need* (Perrin, 1987).

Explicitly, the SIFT allocation was justified as a subsidy to preserve a particular status quo, where the teaching hospitals are promoted as an elite, with better funding; and the teaching of medical students used as a justification for prestige building and ascendancy into this elite.

4.4 Evolution of SIFT

There have been further development of the SIFT concept after its origins. Culyer defined a component of hospital-based research that also accounted for some of the excess costs of teaching hospitals. This research cost was then incorporated into SIFT (which became SIFTR) to the tune of another 20% of the per capita excess cost, in addition to the 75% multiplier for teaching (although due to a different calculation, it resulted in only a 2% increase in real terms). In 1994, the research element was then withdrawn into a separate NHS fund, deducting 25% of SIFTR, regenerating SIFT as the support funding for undergraduate medical education.

Further evolution clarified a major issue around SIFT. The Winyard report, "SIFT into the future" in 1995 was produced as part of the purchaser/provider split of the NHS in that period. It addressed the role of SIFT in this new financial structure of the NHS in order to disentangle the costs of the teaching function of the NHS from clinical care; and to avoid passing on the teaching costs to purchasers. Importantly, the Winyard report specifically stated that SIFT funded the costs to the NHS of *supporting the teaching of medical undergraduates*, but was *not a payment for*

teaching as such. This very fine semantic distinction has laid at the heart of the difficulties in implementation of SIFT. Following this, it could be foreseen that recipients of SIFT income might be reluctant to pay directly for teaching; while using SIFT income for any function that could be interpreted as supporting the institution of the teaching hospital.

This was probably not the interpretation intended by the Winyard report. It stated that the purpose of SIFT was to create a level playing field, in which hospitals that supported undergraduate medical education were not disadvantaged from hospitals that did not. However, the effect of their policy was to advantage teaching hospitals relative to every other hospital, from that time forward.

Another major development resulting from the Winyard report was the division of SIFT into two funding streams; 80% for "facilities" and 20% for "clinical placements". The facilities budget was to support fixed costs to the hospital for supporting education, such as tangible assets (space, libraries, equipment) and also human assets (higher staff to patient ratio, more specialists, medical illustration). The clinical placement budget was intended to present variable costs that *would no longer be incurred if student teaching ended – allowing a year or so for practical change.* The effect of this split was to fix the facilities budget in the University teaching hospitals, and restrict the budget that could follow students into their placements to 20%. No evidence in support of this split was offered at all. However, as the Winyard report did allow payment to general practices for community based education from SIFT, the majority of the money remained fixed in the elite hospitals.

The most revealing insight into the underlying purposes of SIFT came from a single comment on the disposition of the facilities budget. Contained within the guidelines for implementation of the Winyard report, produced by the NHS Executive (NHS Executive 1995). It was specifically allowed to include in the SIFT facilities budget

time spent by some eminent consultants away from the hospital on national professional work…..which cannot appropriately be recovered from any other NHS budget.

National professional work would be mostly on behalf of the NHS or the Royal Colleges (postgraduate education and research) or at the behest of government departments, and could not be interpreted as involving undergraduate medical education in any way. Remarkably, this was explicitly admitted in the Winyard report itself,

We consider it dangerous to take a narrow interpretation of "facilities to support teaching" which would exclude genuine and desirable costs, where there is no other more appropriate budget from which they could be reimbursed. (Winyard 1995, p27)

In most institutions, this guidance would be taken to represent a kind of carte blanche in implementation terms, opening this budget, which is 80% of the SIFT allocation, to many and various "desirable" diversions. The authors could not have been unaware of this.

Bevan (personal communication, 2012) comments that SIFT had assumed a metaphysical identity. It represented payment for a hospital to be an ideal of a teaching hospital, incorporating advanced medicine, research medicine as well as teaching, and represented a global funding for the whole package.

4.5 Evolution of NHS funding

Although SIFT initially covered the excess costs of teaching hospitals, this was never quite enough: indeed, the initial calculation assumed that 75% of these excess costs were attributable to their "teaching function", so there was always a deficit to cover.

Those excess costs were mostly attributable to patient care and the practice of advanced medicine, much of which was not practiced in normal district general

hospitals. The system of funding clinical activity however, evolved during the period of SIFT 1976-2013, while SIFT remained largely unchanged in its main characteristics.

From the beginning, the NHS was under-costed and in immediate financial crisis, overshooting its budget by 34% in its first year 1948-9 and again by 28% in 1949-50. Despite reports, Royal Commissions, care scandals and re-organisation, the hospitals were reliant basically on locally negotiated Exchequer grants for their running costs until the 1976 Resource Allocation Working Party (RAWP) which gave birth to SIFT also changed the financial structure of the NHS. Area health authorities were allocated a share of the global budget by a formula that took into account population size, age, gender, and standardized mortality rate. A system of exceptional payments was instituted to allow specialist services to be developed and funded, but this was very politically determined, and somewhat haphazard.

The major development came with payment by tariff, introduced as part of the flurry of reforms in 1989 to develop an internal market of purchasers and providers in health care (Edwards 1993). GP fundholders and quasi-independent hospital Trusts were also founded at that time; tariffs were the prices set (in a highly regulated artificial market) by hospital providers to their purchasers. GP fundholders were abolished and replaced by primary care Trusts, and the "marketplace" softened to a commissioning exercise in recent times, but the essential change in funding. The first tariffs were quite limited, to elective surgery only, which could be relatively easily costed and counted; by 2000 the tariff was incorporated into another major re-organisation of the NHS and renamed Payment by Results (PbR) and generalized to elective and emergency work in all areas of clinical activity (Department of Health, 2010).

The tariff system of payment was intended to reward hospitals for the range and complexity of their work. Although it certainly did not do this in 1989, by the end of the century, all work was paid through tariff, and higher cost clinical work attracted

(relatively) higher payments, although it is always debatable whether this represented true cost. However, the system of PbR removed the justification for SIFT as the means of covering excess costs of hospitals doing different types of clinical work; this was supposed to be the function of tariff.

Despite these huge restructurings and re-basing of the NHS economy, over nearly 40 years, the SIFT funding system remained essentially unchanged throughout. It is not clear why this happened; possibly the major changes related to the central issue of how the NHS paid for patient care, and the lesser education and training issues were left for another time.

4.6 Implementation of SIFT

SIFT money started in the Department of Health, and was passed through the NHS executive to the Strategic Health Authorities (SHA).* This has been constant since first implemented in 1976, with only the names of the bodies changing with each re-organisation. The SHAs managed SIFT as part of their wider remit to finance education and training in the NHS, which was financed through the MPET (Mulit-professional education and training) levy. The other components of this levy, apart from SIFT are dental SIFT (dental undergraduate), MADEL (postgraduate medical and dental education) and NMET (non-medical professions). There were 10 SHAs in England, which were co-terminous with government office regions.

Each SHA dispensed SIFT money to a variety of teaching hospital, district hospital and general practice providers of education. This process was governed by a contract, the Learning and Development agreement (LDA). The LDA was only between recipient and SHA, with no involvement from the Universities who set the curriculum and award the medical degrees.

* The strategic health authorities were dissolved by the NHS Act 2013. Their function in administering education funds in the NHS has passed to Health Education England (HEE) and its constituent Local Education Boards (LETBs).

Each recipient was obliged to undergo yearly review of the whole MPET award by the SHA awarding money. The review took the form of a report from various stakeholders in multi-professional education, including the University medical, nursing, dental and allied health profession schools, the postgraduate deaneries, regulatory bodies, official representatives of the professions, and unions. SIFT review was considered only as a part of the whole, and was a rather small proportion of the MPET budget with corresponding small input into the review (17% of Yorkshire & Humber MPET levy 2009-10, dwarfed by NMET 41% and MADEL 37%; although with the crucial difference that NMET and MADEL pay part of the salaries of their students) (Gilpin, 2010).

It appeared that relatively little money was spent on administering the SIFT allocation up to its dispensation to the hospitals and general practices. The accounts of Yorkshire & Humber SHA showed a 0.014% budget spend on SHA costs of the whole MPET levy (£6.37m out of a budget of £496m).

The costing for the SIFT contract (LDA) between recipient and SHA depends crucially on the number of student weeks, i.e. the number of medical students x the number of weeks they are present within the hospital or practice. This is the unit of cost and payment for the clinical placement portion of SIFT. The much larger facilities portion of SIFT was costed on historical grounds, and paid over without much demur or justification by the SHAs, according to its historical patterns.

There was an inexplicable variation in the SIFT clinical placement payment per student week, both between different SHAs and even between different recipients in the same SHA (table 4.1).

Table 4.1* **Clinical SIFT rate for placements in teaching hospitals, district hospitals and general practices in different parts of England, 2000-1**

Recipient (2000-1), clinical placement SIFT	Acute teaching hospital(s)	District general hospital(s)	General practices
NorthWest (Liverpool/Manchester average)	187.41	256.47	191.88
London (average of 5 medical schools)	212.68	187.78	218.47
Eastern (Cambridge)	211.43	211.42	359.14
Northern (Leeds/Newcastle average)	217.52	181.17	194.60
South East (Oxford/Southampton average)	214.35	198.21	213.50
SouthWest (Bristol)	186.40	219.54	394.78
Trent - Sheffield	377.19	78.82	196.00
Trent - Leicester	295.85	205.30	405.63
Trent - Nottingham	276.26	267.73	279.54
West Mids (Birmingham)	258.06	230.26	30.81

Some of these figures appear to contradict one of my central arguments, that a hidden purpose of SIFT was to preserve the financially superior positions of the elite (teaching) hospitals. Certainly some of the unit payments for district hospitals and general practices were higher; but these were generally in courses where the majority of placements were within the teaching hospitals, thereby preserving their hegemony. The position is clearer with the same analysis for the larger facilities SIFT payment, also corrected per student week (table 4.2).

* All figures in £ (GBP) per student per week. Calculated by the author from the SIFT accountability reports 2000-1.

Table 4.2* Facilities SIFT rate for placements in teaching hospitals, district hospitals and general practices in different parts of England, 2000-1

Recipient (2000-1), facilities SIFT	Acute teaching hospital(s)	District general hospital(s)	General practices
NorthWest (Liverpool/Manchester average)	1263.25	168.31	0
London (average of 5 medical schools)	1066.94	162.04	169.75
Eastern (Cambridge)	1158.39	168.45	0
Northern (Leeds/Newcastle average)	1329.05	42.56	25.07
South East (Oxford/Southampton average)	1099.02	86.11	147.62
SouthWest (Bristol)	850.20	307.05	135.65
Trent - Sheffield	1753.65	4.17	17.35
Trent - Leicester	1656.52	4.55	81.33
Trent - Nottingham	1073.33	93.70	0
West Mids (Birmingham)	951.45	217.04	243.83

Taken together, the total SIFT allocation per student week unit was £1464 for teaching hospitals, and only £329 for district hospitals and £330 for general practices. These figures strongly support the contention that the teaching hospitals strongly benefited from SIFT, although the relative benefits of one teaching hospital compared to another teaching hospital, even within a single region (Trent), were puzzlingly disparate. Bevan also pointed out this inconsistency, but could not put forward any underlying cause, save the general accounting and calculation chaos that is characteristic of this subject (Bevan, 1999).

* All figures in £ (GBP) per student per week. Calculated by the author from the SIFT accountability reports 2000-1.

4.7 SIFT in the devolved nations

The devolved nations of the UK, namely Scotland, Wales and Northern Ireland, have largely adopted the same system. Medical education is dually funded, to the medical universities through the higher education budget, and then to the NHS institutions through an equivalent of SIFT. The scheme in Wales is still named SIFT-W (for Wales), in Scotland, the Additional costs of teaching (ACT) and Supplement for undergraduate medical and dental education (SUMDE) in Northern Ireland.

The arrangements in the devolved nations strongly paralleled the English arrangement. Although the formula for calculation is not explicit, there is a similar 80/20 split between facilities and clinical placement payment; and a similar concentration of funding in the central teaching hospitals associated with the Medical Schools.

Northern Ireland actually contains only a single medical school, with a single central Teaching Hospital Trust, in the capital city (Wales was the same until recently, but has spun off a second medical school at the University of Swansea). They are more like a single English Strategic health authority. It remains a puzzle why they did not use their legal autonomy to effect changes in the system.

The SUMDE review in Northern Ireland in 2008 reveals some of the thinking behind this puzzling fact. It was recognized that there were many flaws in the funding system.

The allocation of SUMDE is based on a historical arrangement to fund the additional costs required by the organisations involved in the provision of teaching. Currently, the use of most SUMDE funding is not transparent…
The method of distributing funds fairly to Trusts must be fit for purpose. The current system that is used to allocate the vast majority of SUMDE funding is overly complex and it is not clear to stakeholders how the funding is used or if it

is used appropriately (Department of Health, Social Services and Public Safety, Northern Ireland Government, 2009).

The review proposed several changes to the funding mechanism, related to student numbers and teaching load. This would have resulted in a net flow of funds away from Belfast and towards the other four district general hospitals in the province, in the region of £1.82m to £2.25m per year. These proposals were never adopted, and the current system remains in force, with gradual year-to-year ad hoc funding alterations on a historical SIFT framework.

4.8 Conclusions

The dual funding of medical education has a historical basis. Before the NHS, hospitals received fees directly from students for access to their patients, and, not infrequently, for hospital appointments with privileged access. Students also paid their teachers directly, and as medical colleges began to form, students paid fees to the colleges for lectures and certification of their learning. Student-associated monies were very large, and formed a basis for these hospitals to flourish. The triangle was not quite complete, as pre-NHS hospitals did not pay their senior medical staff, who discharged their duties through a combination of charitable impulse and a desire to advance their skills and reputation by treating the most desperate cases. This accounts for why senior medical staff are still referred to as "consultants", as they were consulted by the (paid) house staff, who worked at a more junior level. This historical duality also had the effect of increasing the power and prestige of the teaching hospitals, particularly in London; so that the teaching function and name became strongly linked to the elite status of the institution.

Funding of medical education in the NHS preserved these very large sums of money: the money came from government but retained the association with student teaching. The funding formula for SIFT was based upon the excess costs of teaching

hospitals over general hospitals in the 1970s, and persisted in this form for around 40 years. The excess costs were attributed to their teaching function, but in reality comprised their function as elite hospitals practicing advanced medicine. SIFT was never intended to represent the cost of student education, and was far too large a sum for this. The true costs of teaching undergraduates was not separated from this subsidy, but was always intended as secondary to the prestige elements of the teaching hospital, and the practice of elite medicine. There were remarkable and unexplained variations in SIFT allocation between different regions and between different institutions within regions.

Chapter 5

Operational Aspects of SIFT

I have demonstrated how the SIFT subsidy to healthcare providers originated, was formulated and paid. I now turn to consider what happened to that payment once it arrived with the provider. I have concentrated on hospitals, as they are the largest recipients of SIFT, and as most hospitals are Foundation Trusts, which are constituted as publicly accountable bodies. This is a very different exercise from the calculation of formulae and the principles of policy described in the previous chapter. Analysis of the implementation of policy determines whether or not that policy achieved its desired outcome, and is mindful of the unintended effects from that policy.

It is important to take on the concept that although the SIFT money was nominally attached to undergraduate medical students, that was only part of the definition of a teaching hospital, which required extra funds for its existence, over and above a standard hospital. Moreover, the block grant nature of the funding, and the trusted status of the hospital management gave hospitals a very generous leeway in interpreting the appropriate use of these funds. The way in which the SIFT money was allocated within hospitals makes this very clear.

5.1 Costing of SIFT

There were a number of consultation and guideline documents in the period 1992-8, around the publication of the Winyard report and the main reform of SIFT. There does not appear to be a record of any central advice as to how the SIFT money should be spent before this period. There are no guidance documents dating from after this period, presumably because the new system was well understood, and did not change substantially before the demise of SIFT in 2013.

Unusually, the University of London published guidance on SIFT in 1992 (Royal London Hospital 1992). The University was probably acting on behalf of a group of

London teaching hospitals, as SIFT money does not actually involve the University of London, as it passes from the Health Authority to the hospital directly.

The allocation then suggested by this group was that the SIFT money should be divided into money spent on student-related variable costs, and money spent on fixed costs. Interestingly, the variable cost was actually not defined in the document, but estimated in their worked example at £48420 (2010 conversion) per student. The authors actually argue against the principle of this payment, before suggesting a very generous subsidy.

Patients do not stay longer in hospitals which teach. Investigational costs of routine cases should not be higher if exemplary practice is taught. Staff have to achieve more in the given service time but costs are not increased unless sessions are given specifically for teaching….and if additional outpatient clinics are provided because of the slower throughput when students participate in the clinic. Both these factors are already caught up to some extent already (sic) in relatively generous staffing of hospitals with a substantial teaching activity.

This translated into a SIFT payment for a London teaching hospital of £2.4m per year, with a much larger sum of £11.6m for core infrastructure costs; giving a recommended proportion of 17:83, variable to fixed cost. This was close to the Winyard report's final recommendation (in 1995) of 20:80 for this proportion, which leads me to believe that the authors of the London University guidance had some notion of the forthcoming recommendations.

Other proportions of allocation were proposed. The minutes of the Joint standing committee of the London Hospital (archives LT/A/4/3/1) suggested the funding be divided on the basis of 25:37.5:37.5 to research, base costs and student costs respectively. However, again, it is assumed that base costs and student costs were distinct, and what expenditures actually qualify as which type of cost is never defined.

There is a single, important source that defines an allocation plan once the funds arrive at the hospital. A SIFT protocol agreed between the London Hospital Trust and the Medical College in 1990 (archive LT/A/10/7/3) divides the money as follows (Table 5.1).

Table 5.1 SIFT protocol, the London Hospital Trust 1990

15%	Allocated to Departments on the basis of space utilisation
15%	Allocated to Departments on the basis of ancillary and clinical staff employed
30%	Top sliced by hospital for diagnostics and drug costs
10%	Top sliced by hospital to cover nursing costs
Unknown %	To cover around 10% of consultant and medical staff salaries and to fully fund merit awards
Unknown %	To subsidise specialty groups providing services to outside agencies, eg drug companies
Unknown %	To allocate as a specific subsidy for specific high teaching or research costs
1%	Hold as a reserve against "in year teaching hospital developments"

The most remarkable feature of this plan is that there does not appear to be any allocation for routine teaching activities, which is the nominal intention of the funding.

It could be argued that if 10% of the salary of every member of the medical staff of consultant and junior grade is being funded by this money, that the teaching activity is generously paid for. Although there are some NHS doctors who spend 10% of their time in teaching activity, this is quite rare, as we shall see. However as 71% of the SIFT money is already spoken for in this allocation, the residual sum is at maximum 29% of the total, assuming that the other two "elective" allocations are set to zero. The total amount of SIFT received by the London Hospital Trust in that year

was £46.1m (2010 conversion) out of a total budget of £232.2m, or almost 20% of the gross income of the hospital. The potential contribution to the salary of teachers amounts to £13.4m, or less than 0.6% of the hospital budget. As the typical medical staff costs for a London teaching hospital is about 15-16% of budget (taken from King's College Hospital, Annual Report 2000-1), it is optimistic to cover 10% of medical staff cost (which should therefore be 1.5-1.6% of total budget) on 0.6% of budget. As the allocation was never even specifically defined, then it becomes impossible to define a fixed percentage of doctors' salary for education, and therefore to be accountable for their medical student teaching for this amount.

Furthermore, it is extremely revealing that at least 40% of the SIFT money was top sliced by the hospital in respect of its costs in diagnostics, drugs and nursing. These were important activities of the hospital, but they did not have a great impact on medical student education.

It is a characteristic of this area that allocation plans had a strong top down flavour. Large sums of money were being granted, and allocation was effected in a quick and easy method, using existing structures within the hospital. In terms of funds being used for medical student education, the allocations did not make sense, and on further analysis, the numbers did not really add up.

The NHS Executive published further guidance, after the publication of the Winyard report in 1995. This was the reform that first apportioned 80% of SIFT for facilities to support undergraduate teaching and 20% for clinical placement expenses.

In respect of the larger sum of money, which would be in the tens of millions of pounds per year (as much as £20m in the London teaching hospitals), the NHS Executive advised hospital Trusts to cost the following types of resources for their facilities contracts.

Table 5.2 NHS Executive guidance for costing facilities resources related to undergraduate teaching, 1995

Resource	How to identify resources attributable to facilities to support UFG teaching	How to cost the resource
NHS medical staff	Consultant job plans or diaries to identify teaching commitments	Pro rata to average salary
Pathology costs, X ray, therapy services, pharmacy, medical illustration, teaching equipment, computers, audiovisual, provision of bleeps and white coats	Evidence of use of each resource to show fair basis of apportioning cost between SIFT and healthcare budget	Agreed proportion of costs
Additional space specifically for students; residences, locker rooms, teaching and study spaces, library, other overhead costs such as portering, cleaning	Information needed on actual use of space for supporting UG teaching	Agreed proportion of costs

We turn to the resources that hospital Trusts were advised to consider in the costing of the clinical placement contract.

Table 5.3 NHS Executive guidance for costing placement resources related to undergraduate teaching, 1995

Resource	How to identify resources attributable to clinical placements	How to cost the resource
NHS medical staff	Consultant job plans or diaries to identify teaching commitments Comparison of patient throughput with similar unit without teaching Specific costing of time supporting clinical examinations	Pro rata to average salary
NHS nursing staff, professions supplementary to medicine	Staff rotas , diaries to identify teaching contacts Comparison of ward costs in similar units without teaching	Pro rata to salary costs
Unit cost of staff	Compare numbers and grade of staff to units without teaching	Excess salary cost
Pathology, xray, drugs, therapy services, theatre running costs	Compare to units without teaching	Number of excess "units" times average cost
NHS overheads, eg laundry, portering, catering, medical records	Estimate resources per student week, eg laundry of white cotas, subsidized meals, accommodation	Extra units times average cost

The Todd report had remarked on this subject 30 years previous to this advice. Presciently, they noted

The directly attributable educational costs are only a very small part of the total costs of teaching hospitals. The total includes…costs of special diagnostic and treatment facilities….secondly the costs attributable to the generally superior standards of

patient accommodation, medical and nursing staff… Not all this sum – perhaps very little or even none of it – can be properly attributed to undergraduate education (Royal Commission on Medical Education 1968) .

Twenty years on from the Winyard report, the advice seems outdated. Consultant job plans are strictly defined, and, for most consultants, do not contain specified time for undergraduate teaching; nursing, pathology, drugs, X ray and theatre are not impacted by undergraduates at all, and students no longer wear white coats or receive subsidized meals. In the central teaching hospitals, which were the main recipients of SIFT, there are no residences for students at all. At the time, these estimates seem more reasonable; students did wear white coats, and did have cheap meals (along with the rest of the hospital staff) and may have occupied on call rooms at night (I never found any during my own medical student career); but without the salary and staffing components, there are no expenses that could run into the millions of pounds of SIFT payment every year.

If we accept this analysis and the conclusions of the Todd report, and disallow the clinical running costs of the hospital such as nursing, diagnostics etc, we can then calculate what the SIFT payment actually covered. For a teaching hospital receiving £20m per year, (and most London hospitals received much more), even if direct costs such as library, student laundry, and the indirect costs of energy, etc were to total £1m, this would leave £19m contribution to medical salaries, as the main teachers. This would represent 50% of the entire salary costs of all medical staff at King's College Hospital in 2000-1. It seems unlikely that anywhere near 50% of medical staff time was taken up with medical student education.

The disparity between costs attributable to undergraduate education and payment for this education was so large, that the Trusts could not have been unaware of it, as they were responsible for the costing exercise. Remarkably, in an independent review of SIFT for the Welsh government, a consultancy found

In 2011/2012 only £7.1 million of the total Infrastructure and Clinical Placement SIFT funding of £31.8m allocated to Cardiff and Vale University Health Board could be directly accounted for (Scott 2013).

To some extent, this was predicted at the time.

Following the principles of Costing for Contracting, all the Trust's actual costs will be charged to patient care unless there is agreement to meet them from another budget. Trusts will need to agree with their SIFT facilities purchaser….exactly which costs can be charged to SIFT. If this shows a significant difference between the costs which are agreed to be appropriate to SIFT and the historic pattern of SIFT income, ROS will plan for managed change to ….avoid disruptive changes in income (NHS Executive 1995).

This guidance only applies to a reduction in SIFT, which would be due to the current SIFT payment being greater than the subsequently justified costs. An increase in SIFT would not be a disruptive change in income. It appears likely that the NHS Executive was already aware at that time that SIFT represented an overpayment of costs attributable to undergraduate education, and actually represented a proportion of the costs of patient care. Were this advice followed, we should have seen a reduction in SIFT income, at least for the teaching hospital recipients over the period 1997-2013. In reality, we find the opposite (Fig. 5.1).

Fig. 5.1 SIFT income 2001-5

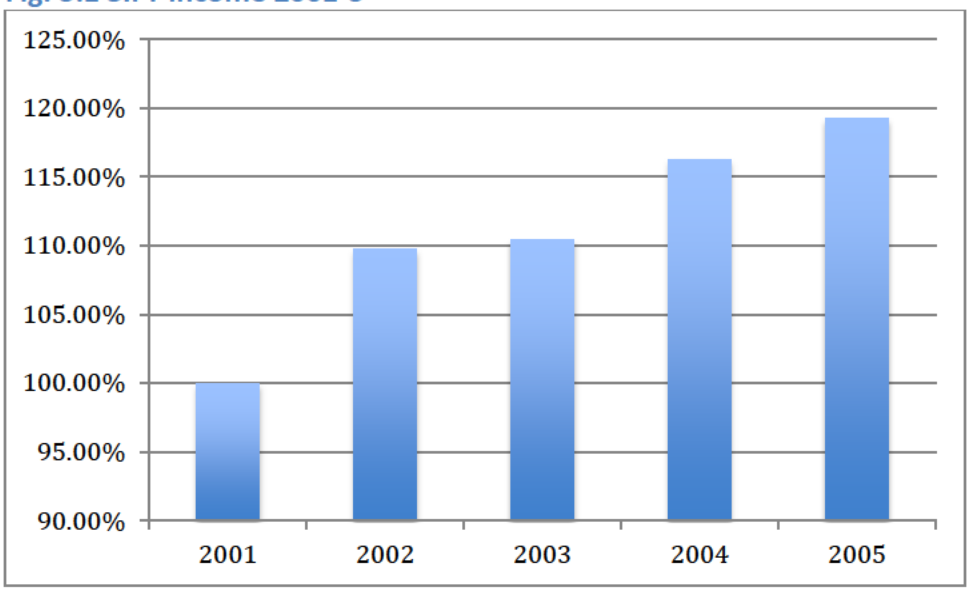


Figure 1 shows the change in SIFT income averaged for 10 teaching hospital Trusts [1] 2001-5, normalising their income in 2001 as 100% (BMA 2008)

5.2 Operational guidance

The NHS Executive published operational guidance for SIFT after the Winyard report reforms in 1995. There had not been any previous advice, although we have seen the allocation plans agreed in the University of London 1990.

It was not essentially different from the costing advice issued simultaneously. There were a number of annexes with funding deadlines and future funding plans to help with planning for future years. SIFT contracts were supposed to be in place for 1997-8. There was a plan to develop a "bottom up" costing exercise to determine the true cost of medical student education, and for this exercise to inform a change to the SIFT formula by 2000-1.

[1]Manchester, Guy's & St Thomas, Newcastle. Nottingham, Oxford, Royal Free, Sheffield, St. Mary's, Leeds, Birmingham

There was a reassuring emphasis on stability of funding. *The 1996-7 contracting round will be based on "no surprises"* and *It may not be desirable to move immediately to basing SIFT contracts on demonstrated costs in 1997-8, if there are significant discrepancies from the levels of funding received through SIFT in 1996-7* (NHS Executive 1995). In the event, this stability was to last for nearly 20 years, not just one.

We have seen that the payment remarkably exceeded any justifiable cost. The reality of SIFT was that although it was supposed to be justified by costing student teaching activity, it never actually was justified in that way. There never was a reduction in SIFT payment to reflect the reality. The old top-down costing of SIFT as a means of meeting the excess costs of an elite hospital persisted right to its demise.

5.3 Contracts

There were two types of contract within the SIFT system. All providers had to have contracts with the payers; so these contracts were between hospital Trusts and the Regional (later Strategic) Health Authorities. There also had to be contracts between the University and the hospital Trusts. These contracts typically did not carry any financial clauses, as the University was not involved directly in the money transfer between the Health Authority and Trust. The University/Trust contract generally specified what the Trust was expected to do in order to justify the SIFT money, and the University carried out a yearly inspection of all SIFT receiving Trusts.

I have taken three relatively recent Health Authority/Trust SIFT contracts for analysis; the Learning and Development Agreement 2006 from NHS Yorkshire and the Humber Strategic Health Authority and any provider in its region, the 2007-8 Letter of Agreement between NHS London and the Royal Free and University

College Trust, and the 2009-10 Service Level Agreement between the Welsh Assembly government and Cardiff & Vale NHS Trust.

These were essentially legal documents setting out obligations for each side. Our main interest is what the requirements for teaching of students were specified. Immediately it is notable that specifications were made in terms of access to patients, teaching space, diagnostic equipment, bleeps, accommodation, and even staff development in teaching. There were fairly precise definitions of what the teaching should consist of; *clinical staff are available to conduct undergraduate teaching, including formal lectures and seminars, ward and clinic based instruction and to participate in University examinations..* and *clinical training includes, in addition to lectures, demonstrations , tutorials and teaching at the bedside….assessment, examining and marking, attendance at meetings concerned with teaching, vocational and pastoral tutorial and mentoring work, course review and development*. However, at no point was the amount of teaching hours, or even the number of teachers ever specified. The planning was on the basis of student weeks, but the contracts did not ever specify how much teaching the students should receive in those weeks.

Further examination of the contracted activities show the provisions were actually very undemanding, and could be met with minimal attention to quality. For example, the provider *will ensure that students will have appropriate preparation, commensurate with the practice learning opportunity being undertaken* and the provider *will ensure that the students receive and appropriate introduction and induction to the practice area*.

The provider will encourage and support staff in *activities supporting education and training, including development of curricula of programmes, membership of course and programme committees and quality assurance processes*. The provider will encourage and support staff to *participate in the selection processes for students* and will encourage and support staff to *participate in the agreed NHS-wide Quality*

Assurance processes, for instance by acting as reviewers of the quality of learning provision in other clinical or academic centres (Yorks & Humber SHA, 2006). There are no other specified activities in these two sections of the contract.

Similary, in the Welsh agreement the relevant section entitled "Teaching by NHS staff " has 7 specifications;
The provider will ensure that
7.1.1 consultants and other clinical staff are available to conduct undergraduate teaching, including formal lectures and seminars, and ward and clinic based instruction, and to participate in University examinations as required by the curriculum
7.1.2 a commitment to undertake clinical teaching is specified in job plans
7.1.3 appropriate secretarial support is available to enable clinical staff to perform their teaching and clinical duties
7.1.4 A Honorary Senior Lecturer is nominated to act as the lead undergraduate teaching co-ordinator…
7.1.5. nursing, technical, scientific, paramedical and other staff are involved in teaching where appropriate…
7.1.6 adequate diagnostic, and other services are available to support teaching
7.1.7 Staff should participate in staff development and training programmes to enhance the quality of medical teaching (Welsh Assembly government, 2009).

The LDA was devoid of concrete, measureable commitments for the provider to justify their income. What commitments they were asked to make were easily achievable, and were probably being effected prior to any agreement. There were no contracted measures on quality or outcomes of the education provided for this money. Revealingly, the LDA did not even have to be signed and returned for the Trust to receive money from the SHA (personal communication, Yorks & Humber SHA,2009, personal communication, Wales SIFT co-ordinating unit, 2010).

The London agreement differed from the others in that it was a tripartite agreement, needing signatures of the Health Authority (NHS London), the Medical School (Royal Free and UCL) and the hospital Trust. The others were bipartite agreements between health Authority and hospital Trust, which made reference to consulting the University on curriculum and other points, but there was no legal approval of the contract from the University.

The contract between University and the healthcare provider was an oddity, as it was entirely advisory and did not regulate a financial transfer. In the University of Sheffield there was no agreed form of contract prior to 2011. A new draft contract was piloted in 2011 in order to try and specify Trusts' obligations to student teaching. It states nine general provisions, and a tenth specific provision. The nine general duties relate to providing learning opportunities, staff and facilities, to develop and review staff engaged in teaching, to provide indemnity cover for students, to appoint a lead for undergraduate teaching and to account for the SIFT expenditure. These are uncontentious provisions, especially as there is no detail regarding how SIFT expenditure is analysed or reported.

With regard to specific aspects of student teaching (provision 10), specified items include induction , timetable, and teaching mainly by doctors. In addition, commitment is sought to deliver the university curriculum, in respect of assessments, reports on students, small group learning and student selected components. There is a specified weekly teaching session when students can present cases with a clinical tutor, for around 90 minutes. This does seem like a way to define and standardize the provision of teaching; weakened by the lack of any financial incentive, either reward or punishment.

Overall, these contracts were very trusting. They do specify the numbers of students attending on average and for what period of time. They do generally define what the elements of teaching students are to receive, albeit that the contracted activities are easily achievable. However, they were not true purchaser/provider contracts in that

the quantities provided per week or per student were left very much to the discretion of the provider. Ultimately, the University is responsible for the quality of this teaching; but in most cases, the University is not a signatory to the contract and cannot legally enforce the provider to provide its required standard of teaching; nor can the University withhold SIFT money from the purchaser if the provider does not meet its obligations.

The degree of rigour in any contract is evidenced in its measures for accountability, or performance management. How does the purchaser know that the quality of its purchase is acceptable, and conforms to contract?

5.4 Accountability

Kogan writes that accountability in education is problematic.
whilst education is financed and sponsored as a public activity, it is offered in institutions which are largely closed to public scrutiny and difficult to supervise from the outside (Kogan 1988, p17-19)

The high trust, low accountability model of grant-in-aid was adapted for a time of shared values and goals between academics and politicians and civil servants. With the post-modern loss of belief in over-arching narratives of progress and religion, there has been a corresponding loss of faith in the notion that public institutions are beneficient and that those professionals in charge can be trusted to look after the interests of the general population above their own.

As this trust weakened, more formulaic determinations, which could be justified as objective and therefore rational and possibly more fair, became normal in resource allocation. However, there remained a body of the older opinion that autonomy was important for academic freedom, and the block grant survived. SIFT was a hybrid expression of a formula used to justify and perpetuate the status quo, as it set in stone an particular pattern in health service funding, in which some elite hospitals

had very much higher costs than normal. It was therefore a block grant-in-aid, frozen in time at 1976, disguised as an objective formula for fair resource allocation (Thomas 2000).

Kogan defines accountability as *"A condition in which individual role holders are liable to review and the application of sanctions if their actions fail to satisfy those with whom they are in an accountability relationship,* distinct from responsibility, which is *the moral sense of duty to perform appropriately* (Kogan 1988, p25-26)

5.4.1 SIFT accountability

I will look at SIFT in terms of accountability and responsibility, as defined by Kogan above. Winyard recommended a national accountability framework, with an annual report published by the NHS Executive. However, he did not recommend a regular accountability system for providers and purchasers.

We do not think that purchaser scrutiny can be built into the SIFT financial processes on an annual basis. SIFT budgets need to be relatively stable, year on year, to assist proper planning and contracting; a scrutiny exercise is worth doing well, at strategic intervals (Winyard 1995, p29)

At the level of the contractual agreement, we have seen that there was usually no oversight from the body which was ultimately responsible for the quality of education, the university. Although the hospital Trust provider made an undertaking to deliver education according to the university curriculum, the university exercised no power over payment for this education. Beyond some indirect influence, there was no contractual power to enforce quality control or even simple compliance with the university educational curriculum. In Kogan' s terms, the Trust provider had no accountability to the university medical school, only responsibility.

However, there was a contractual relationship between SHA and Trust provider. The terms of the agreement and the reporting of its provisions can indicate the degree of accountability involved.

The SIFT accountability report for Welsh Trusts was a single page, with totals required for SIFT expenditure in 8 areas; premises, equipment, information services, undergraduate administration support; clinical staff and non staff costs, external contracts, miscellaneous and capital charges. By far the largest item was clinical staff costs, amounting to £776400 from a SIFT income of £1218387 (64%) for the Betsi Cadwalader Local Health Board in 2007-8. As there were only 1097 medical and dental staff on the payroll in 2010 (Betsi Cadwalader LHB 2011), and only about half of these were consultants, this sum would indicate that every consultant in the area was working with medical students, outside of their normal clinical commitments, for around 2 hours per week throughout the year. This number does seem large, especially as there are much fewer students allocated to Betsi Cadwalader than the numbers of consultants (only around 100 students per week, (Scott 2013)). I am not able to prove whether this figure is correct or not; it certainly does not seem likely that consultants gave individual sessions to their students. To make sense of the figures, it would appear that some teaching sessions would have more teachers than students. It seems more likely that this figure represented a global allowance for teaching in every consultant's pay, whether they taught or not.

The major problem with accountability was not really in the rather scanty data that is requested, or the lack of quality indicators. There were two main problems; invisibility and invulnerability.

When the reports of various providers were reviewed by the Health Authority, the SIFT report was bundled up with other reports relating to training of other groups of learners (MADEL for postgraduate doctors and NMET fro nursing and midwifery undergraduates). As MADEL included salaries for post-graduate training of junior

doctors, and NMET include NHS bursaries to the students, the sums involved are relatively large, although SIFT was still usually the single largest item. Therefore reporting of SIFT was diluted by considerations related to other large sums of money from the other components of the multi-professional education and training grant (MPET), and became a minority component in the review process.

Even when there have been obvious derelictions in the actions of Trusts, there were few effective sanctions. To illustrate, by example: Yorkshire & Humber SHA paid a large sum from SIFT to a Trust in respect of development of a clinical skills facility, but two years after payment, no such facility existed beyond the planning stage. The SHA was acutely aware that reclaiming large sums of money from the Trust would have destabilizing effects on the Trust's general budget, and imperil its primary function, patient care. The SHA therefore refrained from direct action, and confined its sanctions to writing and enquiring about progress.

I have seen the accountability reports returned from Cardiff & the Vale Trust to the Wales SIFT office 2008-10. Although the Trust was asked to justify its SIFT expenditure on a proforma report, which included an item for Staff Costs, specifically Clinical Teacher time/sessions, this item had been left blank for three years consecutively, without prejudice to their SIFT income. Trusts were protected from sanctions by their mission in service to the public good, and therefore invulnerable to punishment. Health education providers were "too big to fail".

At the level of the Department of Health, there was acknowledgement *that they have very little idea of how the money allocated to SHAs for medical SIFT is spent.* (British Medical Association, 2007) The latest SIFT accountability report published by the Department of Health dated from 1999-2000. There was no published national SIFT accountability report from the Department of Health for 13 years.

There was no real explanation for this remarkable lack of national accountability. Health Authorities were receiving yearly reports, and collating them and

incorporating this in their returns to the Department of Health. For a 13 year period until its demise, the SIFT scheme was not accountable at a national level, although these reports had been published for three years prior to this. The sums of public money spent on SIFT during these years were very large (£728 million in 2005); so an approximate 13 year total would be in the region of £9.5 billion.

The economic model of higher education funding assumes that students will be responsive to teaching quality, and, if there are quality problems, will raise complaints or choose better options. Is SIFT accountable to its ultimate consumers, students of medicine? There has certainly not been any drop in application to medical schools (although gender balance has markedly changed in favour of female applicants), nor have there been student revolts. The student body is curiously passive to the invisibility of the large sums of money ostensibly devoted to their education. I will return to this topic in Chapter 8.2.

SIFT was not accountable. There were almost no sanctions for non-compliance; indeed the agreement did not even have to be signed in order to receive the money. The specifications were light and the reporting was aggregated. This made it easy for irregularities to go undetected. Even large sums of money given for capital projects could be redirected without penalty. Although hospital Trust providers were responsible for delivery of education intended by the SIFT grant, they could not be considered accountable for this.

5.5 How SIFT is spent

There is a variety of information on how SIFT was actually spent, mostly from balance sheets and accounts. For example, for the hospitals associated with students from the Royal Free and University College Medical School during 2007-8, over £40m from a total of £62.8m was spent in the two teaching hospitals, the Royal Free and University College hospitals, with a further £8m at the Whittington

hospital in London. About £6m was spent in two mental health Trusts (mental health is administered through separate bodies than the rest of health care), leaving only £5m split between 20 smaller Trusts in and around London. General practice payments from SIFT amounted to £2.7m, and placement administration expenses to £0.6m. The lions' share of the entire SIFT budget went to the teaching hospitals (64%). It is worth noting the spend on clinical placement administration, which included criminal record checks, occupational health, teaching skills courses for the teachers, as well as the salaries of clinical skills tutors, all of which could be considered as payments for *supporting the teaching of undergraduate medical students* without being a payment for teaching (Winyard, 1995). This expense is supposed to be the major defined purpose of SIFT, but as we see, it amounted to only 1% of the SIFT budget.

A striking study was published in 2007 by the British Medical Association Health Policy and Economics unit, who studied what happened to SIFT money once it arrived within a hospital Trust. They investigated a sample of 33 hospital Trusts which were requested to give information on SIFT expenditure under the Freedom of Information Act.

10/33 Trusts did not respond to this statutory request. Of the respondents, 10/23 Trusts could not account for how the SIFT money had been spent, and 3/23 Trusts responded only that the money had been broadly spent on clinical teaching, support staff and infrastructure, without further detail. Therefore, the majority of Trusts (23/33) either did not respond, did not know, or did not detail how this grant was spent.

Even from the Trusts that did respond, the most frequent was that SIFT funding had historically been incorporated into the baseline budgets of the Trust, and the spending of this money was not recorded separately by the Trust. As one respondent trust suggests, '*this income [SIFT] constitutes part of the totality of the*

trust's income base and therefore is embedded within the totality of the trust's expenditure' (British Medical Association, 2007).

With regard to teacher time ; *Less than a third of respondents (7/23) could provide details of SIFT expenditure on academic teaching sessions by hospital consultants. Several respondents stated that nominally all of their consultants had one programmed activity (PA) funded for teaching, which covers both undergraduate and postgraduate teaching. In some cases, trusts report a mutually beneficial, 'knock for knock' relationship, whereby some university staff undertake clinical work for the hospital and hospital staff are engaged in teaching and education.*

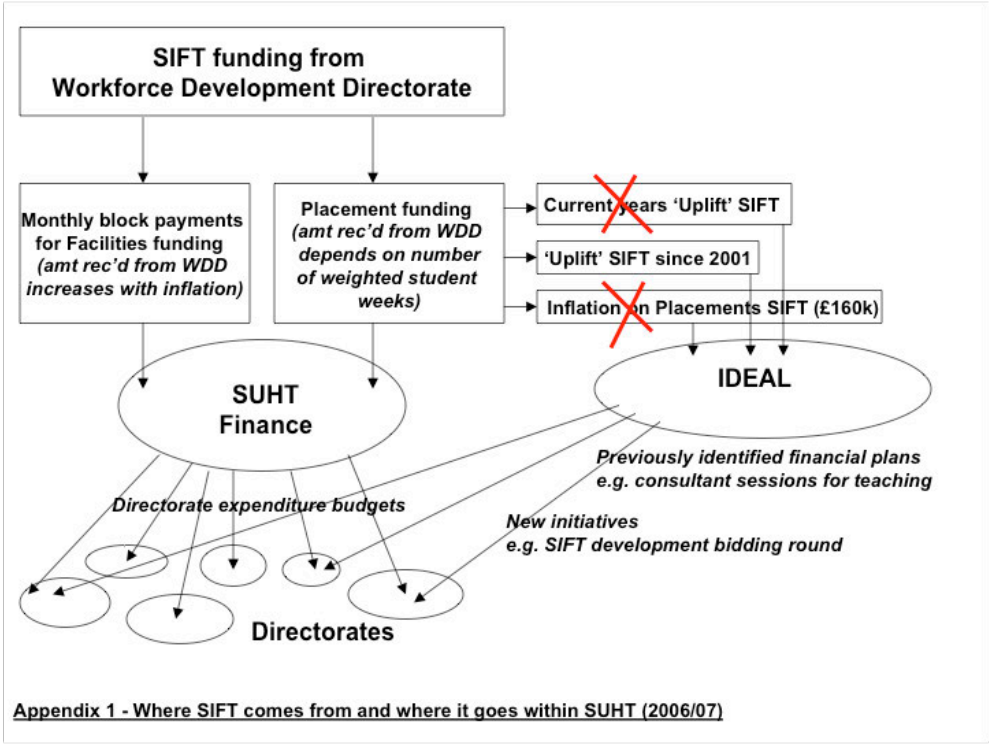
Overwhelmingly, the impression of this survey was that hospital Trusts were receiving SIFT money as grant-in-aid, with few strings attached. As the accountability structures were so weak, they put the money in the general account of the hospital, without financing those areas that were vital to support student education. Particular neglect was seen in the area of teacher reward and support. These data constitute strong support for the weakening of responsibility, defined as the moral sense of duty to perform appropriately in this contractual relationship , (Kogan 1988, p25) .

5.5.1 improved plans for SIFT expenditure

Could the expenditure of SIFT be improved, in order to work for its stated goal of student education? The BMA report highlights some examples of good practice; *a trust based Undergraduate Committee with representatives from each course and directorate (Nottingham University Hospitals Trust) , a joint SIFT Steering Group to oversee the use of SIFT (University of Oxford, Oxford Radcliffe Hospitals Trust and Health Authority representatives) or the Integrated Directorate of Education and Learning (IDEAL- Southampton University Hospitals Trust).*

Taking one of these as an example, University Hospitals Southampton has published its SIFT funding flows (Fig, 5.2).

Fig. 5.3 SIFT flow in Southampton



In reality, its Integrated Directorate of Education and Learning stands at the side of the funding flow. Directorates, which are the clinical specialty groups used as financial and administrative units within a NHS hospital, received their SIFT money as block payments according to an allocation plan from the hospital central finances. At best, IDEAL is an administrative unit that has input into the allocation plan, although that is not clear from the diagram. There does not appear to be any real innovation in this mechanism of funding allocation.

The basis for allocating SIFT funds to directorates was common in many teaching hospitals, often without a great deal of justification for who got what. Sheffield

Teaching Hospitals Trust undertook a rationalization exercise, in which SIFT allocations to directorate was re-based on the number of student weeks in which students were attached formally for clinical placement with the directorate. Notably, this meant that several directorates previously in receipt of SIFT now received zero; critical care, diagnostic imaging, physiotherapy, laboratory diagnostics and metabolic bone disease. These contain some of the very departments that were specifically supported in the London allocation plans from the 1990s.

The big gainers from the Sheffield re-basing exercise were anaesthetics (up from £29400 to £786100) and A&E (up from £547500 to £931700). Although there was a logical basis to this costing exercise, it is probable that "support" services such as critical care and diagnostics are unfairly disadvantaged, as their teaching takes place while students are nominally attached to another, patient-facing clinical service.

Within directorate budgets however, the SIFT budget line only appeared as income. There was not separate budget line for expenditure of SIFT, and no budget line for student education. This repeated the central problem of SIFT; except that it was now split multiple times between the multiple unit constituents of the hospital, rather than within the single central general budget of the hospital.

A more novel and comprehensive allocation plan for SIFT comes from Chesterfield Royal Hospital, which is a district general hospital and therefore has less of the facilities component of SIFT but does receive SIFT in respect of clinical placements.

All SIFT income is spent in one of 5 strands;

1) Indirect Costs of Undergraduate Teaching

This strand compensates the directorate for any lost efficiency whilst providing placements for student doctors. An audit in 2006-2007 estimated a 5% loss of efficiency for "in-service" teaching (students in clinics, theatres, ward rounds etc). Combined with full 100% payment for teachers' time for 'non-service' teaching

(tutorials, induction, assessment etc) these costs totalled £100/student/week and resulted in an allocation that was close to the existing historic allocation pre-2006. This allocation was then branded 'strand 1 SIFT'. When there have been subsequent changes to student numbers strand 1 SIFT has been increased or reduced at a rate of £100/student/week.

2) New Teaching Initiatives

Strand 2 SIFT is used to support specific new educational initiatives. These have included three specially-constructed teaching clinics and a student-staffed acute assessment unit in Paediatrics. Proposed initiatives have been selected on the basis of an equitable bidding process overseen by the Undergraduate Leads' Group. Continuing funding is subject to satisfactory evaluation. Where the activity stops, the SIFT returns to the budget holder.

3) Direct Teaching in Directorates

Strand 3 SIFT has been passed to directorates to add to the job-plans of key teaching staff to pay directly for new 'non-service' teaching activity arising from the implementation of curriculum changes since 2006 including induction, tutorials, supervision meetings and assessments.

The directorates have retained the right to organise who undertakes this work within the context of job planning so the Associate Director of Teaching (ADT) cannot 'pay' teaching staff directly or promise strand 3 SIFT to a particular member of staff. However, the ADT can require the directorates to provide an account of how the money has been spent each financial year via the Clinical Director and could remove funding that is not being used for the intended purpose.

4) Clinical Standards and Governance Directorate Overheads

Strand 4 SIFT covers the recurrent costs to the Clinical Standards and Governance directorate of the Trust for hosting Undergraduate students. These costs include a contribution to the running costs of the Clinical Skills team and the library, and the posts of ADT and a part-time Undergraduate Co-ordinator.

5) Non-Recurrent Teaching Aids

As spending increases have generally lagged behind SIFT uplifts, and the Trust has bid successfully for non-recurrent monies from the SHA, there are usually

significant non-recurrent monies within the reserve to be committed. Directorates have therefore been asked to submit bids for non-recurrent monies on an annual basis. Successful bids include the purchase of specialist video equipment to allow for the viewing of eye examinations in Ophthalmology, teaching aids and materials across Orthopaedics and Emergency Care, and bleeps in Critical Care. This strand of spending has been branded 'strand 5 SIFT'.

As the source of the SIFT income was derived from clinical placements rather than facilities, this exemplary allocation plan is more aligned with teaching than others that we have seen. These examples serve to illustrate that the absorption of SIFT money into the general account of the hospital was not the only practicable way for that hospital to discharge its teaching function.

5.6 Who pays the teachers?

I have made very little mention of teacher rewards. Every educational establishment pays its teachers. Typically, in HEFCE funded higher education providers, academic salaries are 31% of total expenditure (Higher Education Statistics Agency 2014).

In the early days of medical education, students paid fees directly to their teachers, so there was no doubt about roles and responsibilities. As individual teachers coalesced into medical colleges, the situation did not much change; student fees were pooled, and teachers were paid pro rata according to "shares' of the pool. The share value reflected the teacher's seniority and workload. In some schools, the share value could actually become negative, when there were not enough students to fund the operating expenses; in those cases, senior clinicians were expected to make up the shortfall (Henderson 2005 p100).

With the increasing absorption of medical schools into universities, teaching became a university responsibility. The Haldane commission (1909-12) *found fault*

with the teaching of clinical medicine in that this was carried out entirely by physicians and surgeons whose main interest lay in their private practices, and in that there was not teaching of university standard (Windeyer 1966). The commission recommended university hospital units in medicine and surgery to take charge of the teaching function; the professors of those units carried direct responsibility for students' instruction within the hospital.

SIFT actually absolved the universities of this responsibility. NHS clinicians now were responsible for most of the clinical teaching. There were a smaller number of clinical academic staff, employed by the University, who did work for the NHS on "knock for knock" basis. The idea of "knock for knock" as we have seen was always generous to the university, as only a very small minority of hospital clinicians were university funded, whereas a majority of NHS funded hospital clinicians were involved with university teaching.

Although much of the direct student contact was with junior hospital staff, consultants have always been responsible for the education, and have generally had to certify students' satisfactory performance on clinical placement. This was always seen as part of the consultant's professional role and duty; often recognized with honorary lecturer or senior lecturer status (unpaid) within the University. The contracts of employment of NHS consultants were always extremely loose, and never specified any actual type of duties beyond the customary; and student teaching was generally not specifically contracted.

This situation changed in 2003. A new consultant contract was introduced in the UK, and more than 90% of consultants accepted it, possibly related to the greater amount of money on offer. The main difference in the new contract was the specification of consultant duties; typically a full time NHS consultant would be contracted to work 10 half days a week, each half day unit equaling one Programmed Activity (PA). These would be divided into typically 7.5 PAs for direct clinical care; and 2.5 PAs for supporting professional activities (SPAs). The range of

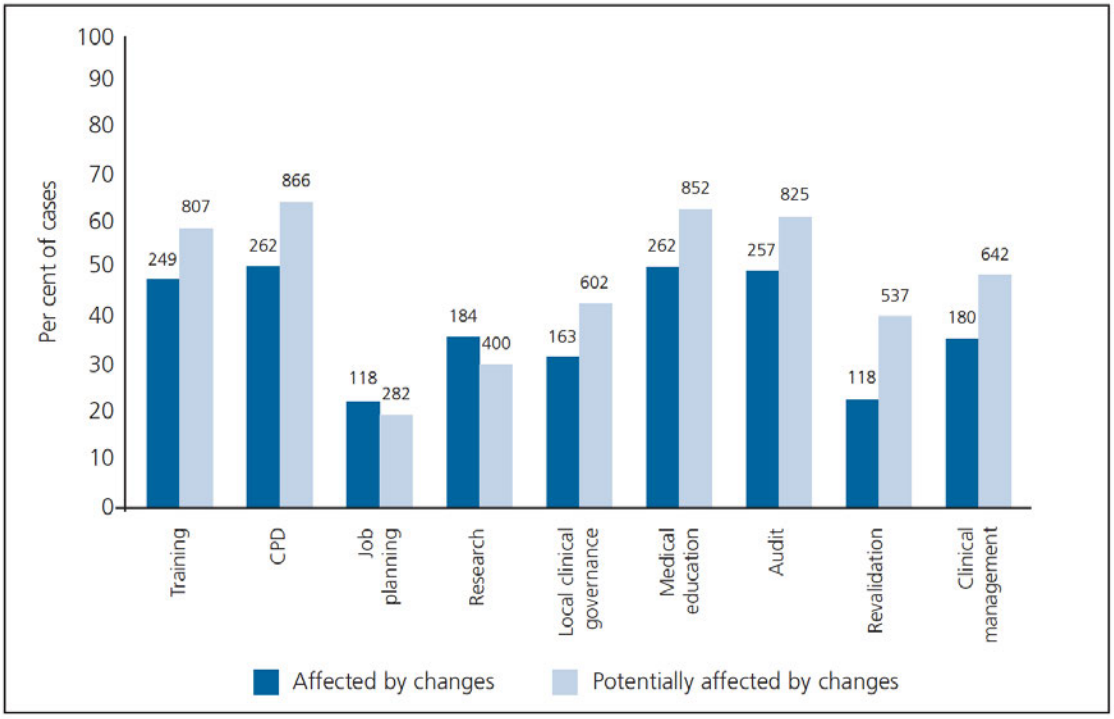
SPAs was quite large, and included medical education; but also training, continuing professional development (CPD), research, clinical governance, clinical management, activities towards revalidation, and research. All SPAs except research and medical education are mandatory for all doctors as a condition of their continuing registration to practise.

For the first time, student teaching was specified in a consultant contract. This would be expected to have the effect of increasing the profile of student teaching in the consultant's work. However, as the other components of the SPA payment are compulsory, and student teaching (and research) only voluntary, it is likely that this positive effect would not be very large. Indeed, as there is only a single payment covering multiple activities, this might well have the effect of placing student teaching in competition with the other (mostly compulsory) activities of a consultant.

As expected, with the retrenchment in NHS funding accompanying the Great Recession after 2007, consultant pay, and specifically the SPA component came under pressure for cost savings. In 2010 the British Medical Association surveyed 2152 consultants on the effects of the new contract (BMA 2010). About 18% reported that they had experienced a reduction in SPAs, and that this reduction most adversely affected their activities in continuing development, audit and medical teaching (Figure 5.3).

Consultants are paid for teaching medical students under the new contract, but this is bundled in with a heterogeneous group of activities in terms of payment. As most of these activities are compulsory, teaching might be expected to suffer, particularly as the system is tested under financial pressure. As the payment is not tied to any component of the package of supporting professional activities, it is probable that the consultants are making their own choices and priorities within the package, influenced to some extent by the priorities of their working environment.

Fig. 5.3 Which of these activities have been most affected by a reduction in your SPA payments?



During the period of SIFT, consultant teaching of medical students has moved from being a professional expectation, backed by custom and tradition, to a contractual obligation. However, that obligation is less than binding, as it is diluted, and possibly competing, with other obligations, which are, in practice, accorded a higher priority. Under the current system, consultants are not so much paid for teaching, as paid for supporting professional activities, which might include teaching. This rather subtle distinction makes all the difference to the actual provision of teaching, as we shall come to see.

5.7 Conclusions

We are in a position to answer the remaining questions posed in Chapter 2.6

What was the formula for calculation of SIFT funding?

SIFT was based on the original RAWP formula (see Chapter 4.2) and only minor variations made to this over the next 40 years

Was SIFT funding fairly distributed?

No, see Chapter 4.6

Was SIFT funding spent for the education of medical students?

No, it was understood that it should pay for some of the support of this education, but it was not intended to be a payment for education as such.

Was SIFT funding spent for other purposes and what are they?

SIFT funding was too large for just the overheads and support of education of undergraduate medical students. It was a significant part of the gross income of a large teaching hospital Trust. Most of it was used in the normal functions of the Trust, whose focus was patient care.

Was SIFT payment clearly accountable?

No, the accountability mechanisms were weak. SIFT was paid even when the accountability reports were not completed, and in some cases, even when the underlying contracts were not signed.

Was SIFT funding reviewed by government in value for money terms?

No, there had been no national accountability report for the last 13 years. As will become clear from the depositions to the House of Commons Select Committee (below, chapter 8.5) most parts of government were aware that there were major problems with SIFT.

From the viewpoint of a senior figure in the medical establishment, SIFT was a necessary support for elite medicine. Elite institutions benefit from a subsidy, which allows them to operate with a margin, insulating them from the financial threat that hangs over the everyday operations of lesser institutions in the NHS. Although that subsidy was nominally for the support of medical student education, everyone understood that this was only ever a minority component of the actual expenditure. Powerful elites have always sought to maintain their advantage, and a recurrent financial advantage wa s a major component of that strategy.

From the viewpoint of a senior educator, SIFT was really not much to do with education. It was a top down exercise which met the excess costs of elite teaching

hospitals, justified to public oversight as an expense associated with the teaching of medical students. It was always too much money for this purpose, and recognized as such by both the payer and the recipient. It was mainly spent on the general clinical care of patients, and gave the elite hospital an inbuilt financial advantage over district general hospitals, allowing the elite institution to fund higher standards and more prestigious activities. There was virtually never a separate budget line for student teaching. This funding was put forward in the name of medical student education, possibly because the recurrent financial advantage of the elite hospitals was historically provided from student fees.

Chapter 6

Effects of SIFT on the Organisation of Teaching

The main purpose of this research was to study the effect of SIFT on teaching in the clinical environment. The major problem with this was the difficulty of tracing the SIFT funding. We have seen in the previous chapter that Trusts always include SIFT as an income stream, but rarely as an expenditure budget line. Either the SIFT money was spent as part of the general budget of the Trust, or it was devolved to directorate units, who then generally spend it as part of their general budget for patient care. Using the normal accounting tools does not give any insight into how SIFT money was deployed in support of the actual teaching activity.

The only alternative methodology is to find out how the general budget of the hospital or directorate supports student teaching on the ground. Student teaching happens; the correct number of students attend for the correct number of weeks; SIFT inspections occur at all recipients of SIFT funding; so, there must be some support of the teaching mission. I chose to interview different types of Trust and University staff involved in medical student teaching.

I have specifically excluded the part of SIFT that funded teaching in the community, usually GP practices. This was small in quantity, but the real reason for exclusion is the nature of general practice. As GPs are independent subcontractors rather than employees of the NHS, money arrives directly linked with students. The money is paid directly to the practice and to some extent, therefore, directly to the GP teacher. This is a very straightforward economic model that does not exist in the hospital Trusts.

I was able to interview people in three levels at two medical schools, as detailed in Chapter 2.2.2. As all interviews were anonymised, I reproduce the table which shows which level and institution I refer to in the following accounts (Table 6. 1).

Table 6.1 Interview schedule

	University medical school (U)	Central teaching hospital (C)	Associated teaching hospital (A)
Level 1 Responsible heads	Dean, director of teaching, School secretary	CEO, medical director, finance director	CEO, medical director, finance director
Level 2 Teaching organisers	phase directors, year heads	Undergraduate teaching leads, teaching liaison officers	Associate Director of Teaching, teaching liaison officers
Level 3 Teachers	Teaching faculty, lecturers	Clinical teachers	Clinical teachers

6.1 SIFT origins and system

The flow of money within an organization is complex, and it was necessary to confirm many inferences and conjectures directly with interviewees, especially when they were senior management level. Interviewees at U1 and C1 level confirmed many of the details of the origins and workings of SIFT that have been presented earlier.

For origins of SIFT;

SIFT …..goes back 20-30 years and it was regarded as the excess cost of teaching hospitals, so I think you have to say it probably wrapped up a whole host of issues : teaching, research, case mix, all sorts of things and I am assuming somebody did a kind of relatively crude ……, comparison of costs of Teaching Hospital versus District General Hospitals and came up with this fix, so the kind of values just rolled forward for years. I don't think anybody understood it but every now and again somebody said

"let's have a look at this" and then put it down because was just too complicated really (C1).

And for the uses of SIFT in the teaching hospital Trusts;

U1- I was going to say it is the lack of control at the medical school that we have over SIFT that is dispersed which is actually hindering us, so if you are asking me what one change could you make that would really make a big difference and that is give us the SIFT for the students and we will disperse it because we actually know where the activity is going. I can see there are disadvantages, perceptional disadvantages, but actually it would allow us huge flexibility.

PC – It sounds like you believe however SIFT is not really a payment for teaching medical students and that it is used to plug any kind of financial gaps that happen to exist. Do you believe that people believe it to be for medical student teaching pr as a useful wedge of money to prop or support the overall budgets of clinical activity?

U1- In the past I think that is exactly what it has been regarded as. (U1)

and

PC – one of my questions is "What proportion of the grant money is spent on teachers' salaries?" …….

U1 – It is almost negligible from SIFT money, Hospital SIFT money. It was 30 million in Y and all of that will go into patient services.

PC – So SIFT money is used really for the general budget of the hospitals as far as you are concerned?

U1– Absolutely, well it is and the Health Board accountants recognise that…

PC – The SIFT money is at least intended to fund undergraduate teaching and so why is it seen as acceptable that it does not predominantly do so?

U1– Well it is now seen as unacceptable, the problem is trying to unravel the system that historically people have got themselves into this muddle and as an example and I don't know if we have talked about this before, but we have revised our curriculum. We have introduced more clinical teaching into the curriculum, and we have written to all of the Teaching Hospitals in [our area] and we have found 18 Teaching Hospitals

that we related to and to teach our students and we have said to them "this is our teaching requirement for the next year, how much of it can you do? " and they have come back to us and they have said " we can do this and that" and we have therefore agreed to send that number of students to them. Now what that has meant is that there has been a 3% shift in teaching activity away from Y and they have not been able to offer us any more teaching slots, whereas [other areas] have, so there has been this 3% shift, but 3% of 30 million is a lot of money which means Y have a million pound less to put into patient services or to find to push back to central government and that is causing a real problem. It is because patient services are fundamentally dependent upon SIFT money. (U1)

The relative independence of SIFT money from the teaching activity was confirmed by Trust officials, not only in central teaching hospitals, but also in associate teaching hospitals in the surrounding districts.

The other difficulty we have which I think supports your point is it has always been a kind of pot of money that has come into the Trust or predecessor organisations, but because there was never that detail about how it was built up it just kind of sat there if you like as a central sum that just supported budgets across the Trust so there was no kind of "we get 20 million for SIFT and half a million goes there and a quarter of million there and half a million there for you to do this" it just sat there because nobody understood the relationship, so you have got the pot of money up there, you've got the students coming into the organisation and going to wherever it was agreed they would go, and you would have I guess clinical departments doing what they did and the best they did and whether that changed and somebody was regarded as a good teacher so they came there and then that person might have left so they went somewhere else, so there was absolutely no connection between resources being consumed and the money that came in. (C1, Chief Finance Officer)

PC -Was there any pattern to how the Trust were dealing with SIFT monies before 2006? [the interviewee was appointed in 2006]

A2 - No-one was able to inform me of a pattern and there was no pattern discernible from the allocation of the SIFT monies so it was entirely possible that criteria other than teaching activity were used in order to allocate SIFT monies.
PC -Do you think that there were probably no criteria? That the allocation was likely to be pragmatic with SIFT used to patch short-falls in income?
A2 -That may be entirely possible. There may well be other less negative criteria applied but it certainly was not possible to see a strong relationship indeed any relationship really between teaching activity in the allocation of SIFT. (A2)

These interview extracts are remarkably frank and consistent. There is little doubt that the SIFT money arrives in the hospital, and is then incorporated into the hospital budget. There is no element of control exercised by the University which is responsible for teaching,. We now turn to the amounts of money that are made available for teaching in the hospitals.

6.1.1 Expenditure of SIFT

All Level 1 interviewees agreed that the amounts of SIFT were large, and exceeded the costs of medical education.

PC – But it's a large amount of money. 5%, 6% of the total hospital income.
C1 – No it's a lot less than that. I think last year it was about 22 million on 850 million turnover so it is going to be a lot less by the time we finish this.
PC – Say about 3%?
C1 – Yes, but I mean it is probably going if not halve. Ten of millions of pounds and as you say relatively little accountability for it. (C1, Chief Finance Officer)

and

PC – That is a very large sum of money to specifically pay for the education of students and I think anybody involved in education would say that even for your 260 students per year and three years being out in clinical teaching, we are still only talking about 800 or something students and 30 million pounds to fund those students' education is very very very large.
U1– It is.
PC – Why is it so large?
U1– I am not sure how the amount came about because the amount was determined before there was a formula. I mean we are now creating a formula in a kind of post-hoc way. …… there is a heck of a lot of money going, we don't know why that amount of money is being paid for the teaching. There is no formula, there is no tariff…….and I am not really sure what the historical basis for that amount was (U1).

There was even a willingness to cede most of the SIFT money to the Trusts and only work with a small percentage of it in order to fund teaching properly.

U1 – I have worked it out with Trusts all round our patch, how many PA's do you get on the back of the SIFT income into your Trust and if you want to work out the number of PA's that you get on the back of 23 million pounds going into X a year then that is a mighty lot of PA's.
PC – Probably more than you need.
U1– Oh much more and we could have delivered enough teaching from the consultants on the basis of about 3 million pounds a year, assuming that one PA is worth £10,000 per year.
PC - So roughly 20 million per year is not related to teacher time.
U1– That's right, in fact we could deliver what we need and manage what we are doing at the moment on something like roughly 3 million a year. We cover enough, that's all we need. So even when the SIFT income into the Trust is going to decrease from 23 million down to about 11/12 million whatever it is going to be precisely, that is well above the amount that the Trust would need to cover the PA's to deliver the teaching that we require.

We have already seen that the SIFT income is incorporated into the general budget of the hospital.

PC – Could I ask what proportion of this SIFT income is delegated to the different Directorates and what proportion is kept centrally?

C1 – What do you mean by centrally?

PC – Kept by the Trust and not divulged to the Directorate? Presumably to do with infrastructure.

C1 – I think the difficulty was that we didn't know because as I said earlier it was just part of our income, part of everybody's budget. I think we did, when we did these calculations, said OK; X Speciality you have got so many weeks and this is your assumed funding level. I think it was 55% that we assumed.

PC – So roughly 55% is devolved to the Directorates and about 45% for infra-structure purposes and that is about right? You came by that number because that was a number that once you used the formulas, how many student weeks each Directorate has?

C1 – I think it came from the costing exercise we did and we built the costs from there so that was our best guess.

But as there was no new money, this essentially translated into a redistributive exercise within the existing hospital budget.

C1 - …we have started saying now to Directorates "so that much of your budget is SIFT" and for the last financial year we actually took it off them and then gave it back as SIFT, so it does kind of change their funding……..I think actually we did actually take a few bits and pieces off some Directorates and give it to others, really small sums but you know starting the journey I think of making it real.

The subject of teacher reward was raised with all level 1 interviewees. They all agreed that in the present system, although hospital consultants had a nominal teaching activity in their contracts, SIFT was not used to specifically fund this.

PC - are there doctors in hospital or doctors within the medical school who are paid for teaching?
U1 – There are people in the medical school who are employed as teachers but to be honest I don't think any of them are active clinicians. The only people who receive some of their income as academics, who also have a clinical job are research active, if that makes sense.
PC – Yes and so the university activities are basically research. Are there any university doctors who essentially do little or no research but are paid for clinical activity and for teaching?
U1– No and that is the fundamental problem we have in that nobody in hospitals receives money directly in payment for teaching. ……, there are no consultants who are paid as teachers directly by teaching money.

However, there was a recognition that the transaction costs to monitor teaching activity to link it to reward might prove very costly and burdensome.

I think what we would very much like to do is to know precisely what people are doing and being able to say this is the budget line to support that activity and it is incredibly difficult (U1).
If I had a budget line in which I could buy people to come and do teaching, the administration and the time involved in actually dealing with that would be enormously disproportionate to the benefit which you get from the teaching. What I would very much more rather have is a cohesive school where there is a mission that teaching is absolutely a priority (U1)

Level 1 interviewees regarded the non-linkage between reward and teaching as a negative factor, leading to problems with teaching.

as undergraduate educators we kind of almost ask favours of people, say would you allow our students to learn in your place rather than giving people a sense of ownership (U1).

getting gastro-enterology teaching is a complete nightmare because the NHS people cannot give the commitments and their job plans don't allow it and so forth (U1).

the idea would be about an hour to about an hour and a half per week where a student or group of students would together get that sort of engagement and everybody said they couldn't possibly afford the time, so it is as though even in the most well organised teaching-savvy teaching-enthusiastic areas, just to ask for a senior person to spend an hour/hour and a half per week with a group of five students is too much of an ask because of the pressures on them to deliver the clinical service.

Now either I am missing some trick or jobs have changed so dramatically or people are working non-stop 20 hours a day and I just don't believe it. I think there is a lot of hiding behind stuff going on at the moment, you know "we can't do this; we can't do that because of working time directives"(U1).

The gap between money arriving in the organization for teaching and actually identifying individuals to perform teaching tasks seems to be very wide. As teachers' rewards are, at best, at one remove from the actual funding, (and possibly not funded at all) all interviewees expressed difficulty in organizing the actual delivery of teaching. This will be further explored below, when the scenarios of teaching malfunction are discussed.

6.2 Accountability of SIFT

I have identified the lack of accountability for SIFT funds as one of the key features that allowed the slippage of a payment initially to cover the excess costs of undergraduate education into a payment for almost any part of the hospital budget, whatever its direct or indirect relation to undergraduate education. This is largely corroborated by level 1 interviewees.

PC – I have seen the SIFT accountability forms which is actually just one side of paper which to me is pretty astounding for the amount of cash involved. That kind of income stream to the Trust would actually in almost any other circumstance be hedged about with a lot of regulations on how you could or how you couldn' t use it.
C1 – Yeah, I think it is probably fair comment. I mean I think over the years probably some effort went into at least counting and being able to describe the student activity, but I am not even sure that's ever been done particularly well. I always remember an occasion where somebody was doing some bench-marking across the county on funding for student week and I think it was some London hospitals had more than 52 weeks in a year, so obviously they were counting in a particular way……..
PC - ….if each Directorate within the Trust now has a budget line which is called SIFT, what kind of accountability do they have for that budget line? You talked about service level agreement and quality standards and such like, is that what they have to do, do they have to produce a report of justification or is that money likely just to be renewed the next year in the same way that it was for the overall Trust?
NP – I think if the student numbers don't change, I think what we were trying to do were to say you know, here's an agreement and in return for that amount of money you will provide this many student weeks worth of activity and you will meet these quality standards. If the student weeks change then the value of the agreement will change. If a Directorate is doing a very bad job then we would say "right sorry, we are taking the students elsewhere" and they would lose the money. There is still not a kind of "what did you spend the money on"?

This rather loose managerial style of accountability had implications for the quality of teaching delivered. Often the hospital had a kind of captive market, and there was very limited capacity for teaching in hospitals other than the central Trust.

U1 - …although in X they had introduced the budget line into each Directorate which is for teaching and that I think would be very helpful and would start to identify which Directorate is doing the teaching and if they are not doing it then the monies can be

withdrawn, but we have to get the teaching from somewhere. It doesn't help me to have teaching withdrawn from a Directorate.
PC – No because [the teaching obligation] is going to be returned to you.
U1– Absolutely. I have no personal control over these monies so when you were asking would it help if we had control of the money, yes it would because I could actually buy certain teaching Directorates which is important, because that is where the bulk of teaching is occurring within the NHS.

The top-down type of accountability, predicated on service-level agreements rather than an account of how the money was spent, was also thought to be vulnerable to the political context of the payment to hospitals, in which no-one wanted to damage the hospital's income because of the effects on patient care.

PC – You have mentioned something that you related to the accountability of SIFT money, that you would like some fairly detailed agreements upon what you should do you in order to receive this money, do you think that the problem is deficit in accountability?
U1 – I think we have not had accountability, for example some Trusts have not had an account of the spending of the money for as long as I can remember.
PC – And they still get paid?
U1 – And they still get paid. I would like in my position to make sure that we have an annual SIFT visit, it is called, to make sure that the teaching is being delivered, but I don't actually know how the money is being spent and I can't get that information and I have never been able to get that information from some Trusts, in fact from the majority.
PC – But are you not within your rights to refuse to sign a SIFT visit form if you don't get the account?
U1 – Well we did that and we have every year to send a form back to the SHA which is sort of a traffic light system, 14-15 domains and we did orange light some areas at one Trust, in fact for more than one Trust and as a result of that because I think the Trust also got orange lighted in other areas, not from us but by other people, there was a

very very rapid and very senior visit from the SHA to knock a few heads together and then things absolutely started to improve. I have, if you like, all the accountability but I don't have the authority to make changes..

One level 1 interviewee explored the moral accountability of the Trusts and individuals within the Trust in these terms, introducing the idea of moral hazard, which I have taken up at some length in chapter 7.

U1 - the problem is that when you start to look at what we mean by accountability it gets worse because you know there is fiscal accountability and there is programme accountability, but you know there is also the accountability that we forget about which is the moral accountability or the social accountability but moral accountability for teaching, you know can we get teaching done? Is teaching delivered? Do students tell us repeatedly that teaching doesn't take place, that they are abandoned, that nobody comes to see them, that they can be on a Unit for two weeks and they still don't know who the consultants are, and so it is fine saying well you know developing a system that is able to account for spend and teaching activity in a kind of fiscal programmatic way, but where is the moral accountability? That doesn't even exist. And it is a real shame.

PC – So you are casting this money in the light, I suppose, of the economic terms a moral hazard really. That is because the money is so free and easy and there is such a lot of it and you are not really asked to do much with it, then you can do what you like with it within reasonable bounds as long as it is not frankly criminal?

U1 – Yes absolutely. You know and people will justify saying well, you know it goes into patient services but you know you look at the patient information books, you look at posters around the hospitals and it says "This is a Teaching Hospital, when you are admitted to hospital you will be expected to be seen by students and talk to students because learning is important" and you can say well you know that that is there, that is part of the culture, that is part of the experience of coming into hospital, that's part of the life of the hospital, but that is not what I hear back from the students. So we don't have any accountability systems in place or systems that work.

This represents a valuable insight into the nature of accountability. There can be a kind of managerial accountability, in which agreements are made and money paid over if all parties assess each other as adhering to the agreement; this will generally reduce to easily measured items such as numbers of students for numbers of weeks. There is an entirely separate accountability; relating to whether the job is actually done, which this senior Professor has termed a moral or social accountability. The loss of moral accountability is within the intervening process; that the money is paid and spent within the organisation in such a way that does not promote the job for which it was paid.

6.3 Operational organization

Level 2 interviewees were local organizers of teaching in the two sites. They were hospital based consultants, who were employed primarily by the hospital Trust, holding honorary appointments with the University, such as sub-Dean (C2), or university based academics who were heads of years within the course, or university-employed administrative staff with specific responsibility for co-ordination with hospital Trusts for SIFT (U2). Interviews with these individuals were illustrative of the gap between funding and the reality of organizing teaching in the hospital environment.

6.3.1 Relationship between hospital Trusts and University

There were some valuable insights into the relationship between the hospitals and the University in the funding and delivery of clinical teaching. There was not much evidence of positive collaboration; but a definite feeling of suspicion, cross purposes and mutual misunderstanding; occasionally breaking out into a degree of antagonism.

From the Trust side;

PC – I want to explore your relationship with the University when it comes to student teaching. I mean the University are not a signatory to the service level agreement or to any reporting agreement you have with the SHA for SIFT money so in what way can the University influence the way you dispense SIFT money and the way that you deal with these quality issues for teaching?
C1 – Well it is interesting because sometime we feel like the University and the SHA think the SIFT money is the University's.
PC – But it's not. The University does not sign for it.
C1 – No, but they do seem to have conversations with the SHA separate to us so I am sure they have some influence over it. ……..
PC – When I have been having these conversations with the University it becomes quite clear the University or the preferred option is the University administer SIFT and the cheque that the Trust gets would actually come from the University. Would that cause the Trust much grief and trouble or do you think that would probably be neutral?
C1– That's an interesting one. I suspect they probably already try and do this. I don't know somebody would have to change the system to allow them to do that …... I am sure from our point of view we would far rather the money came to us directly
PC -Why would that be?
C1 - because they would have less chance to do horrible things to us.

And from the University, there is a rather strange mixture of frustration with their lack of control over the generous Trust budget (as in the previous extracts), coupled with a rather abashed attitude to the University's own attitude to their clinical teaching; again spilling over into outright anger.

U1 – One of my big issues which we haven't talked about is that you know if you look at HEFCE money, (these are round about figures) , but we get about 14 million pounds a year. 7 million pounds is top sliced and goes to support the research institutes, the other 7 million pounds most of it gets lost in the University and ….. our entire budget is about one hundred and fifty thousand pounds. We are running a medical school on a

£150000 from the initial 14 million and people in the research institutes can only exist because of teaching money and they won't teach for us, they won't be advisors of studies for us because they feel are obsessed by the research excellence framework…….. as mainline academics are not promoted if we don't do well and are not highly regarded by other colleagues. There is a new set of titles for teachers which removes any kind of lecturer or senior lecturer element, there is no readership track for people or milestone in their careers and yet we don't have any funds.
PC – So your belief is that universities' unrelenting focus on research excellence has actually changed the culture of its staff from being researchers who teach to being researchers who research but don't teach?
U1– Yes and it means that funding is diverted, essential funding is diverted to research institutes because that is the way universities are measured and so you have got SIFT money for teaching, SIFT money which just goes in the big black hole and you have got HEFCE money which goes into another black hole in a different place and you know we are really.....(stopped talking)
PC – And you are left working with 1% of the HEFCE money and 0% of the SIFT money or near enough.
U1 – Yes and I don't think many people outside would find that acceptable.

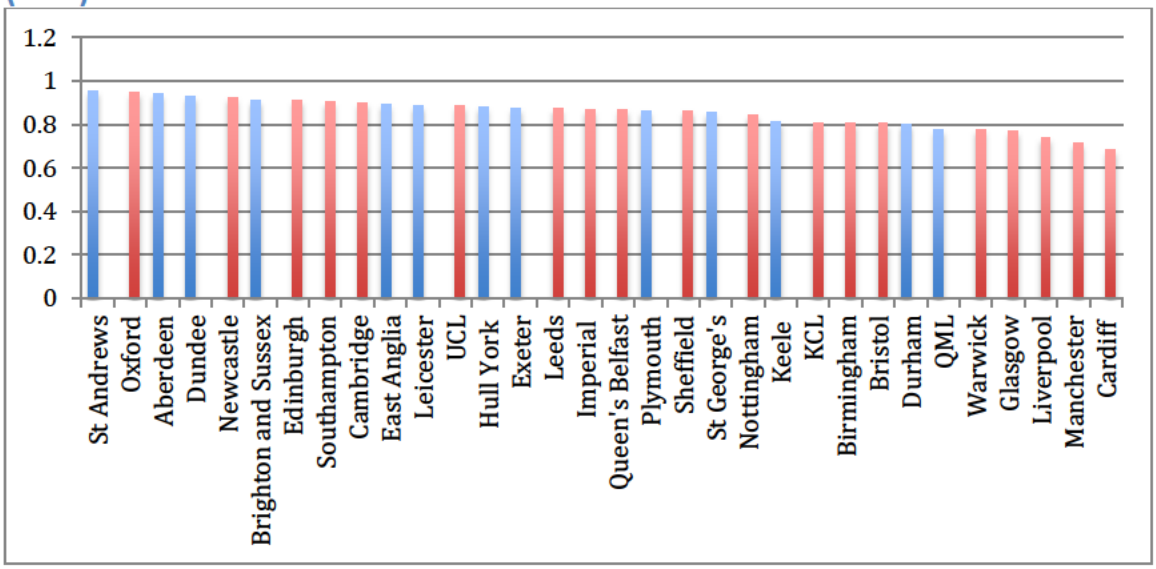
Some of this needs a little rowing back; for example, the central University top slices the gross £14m income for central facilities by about 40%; and most of the other £8m is tied up in salaries of academic and support staff. Nevertheless, as most of these staff appear to be deployed to the research side of this University, the argument is clear, that teaching is coming a very poor second. Certainly a £150000 disposable budget for running a medical school with over 250 students/year seems extremely stringent. No research institute could hope to survive on that sort of budget. The tensions between research and teaching missions of the University are also explored in another University.

U1 - What's actually happened over the last 10-15 years is that the (medical) courses have become almost down a different track from what has been going on within the

research areas. Many of the research areas don't relate to anything that we need on the MB course, however some of the people who are really clever can convert research activity and findings into things of clinical relevance, and they are outstandingly valuable.
PC – But wearing a business hat that, you know, if the funding is actually in the name of the students, then having research developing down a different track is illogical and not only illogical but actually harmful to the main thrust of your funding.
U1 – Yes and in a way I can see where you are going and I agree with you. If you look at the angles of satisfaction that the students have, the less research active medical schools in the UK, the students are more satisfied. The student satisfaction index is higher in the non-Russell group universities.

Although this is a common perception in the world of medical education, the National Student Survey does not strictly support this. Fig. 6.1 shows the averaged overall student satisfaction scores for all UK medical schools 2005-9, ranked in descending order, and classified by membership of the research-intensive Russell group of UK universities. Clearly there is a trend for the non-Russell group universities to be among the higher ranked schools, and the lowest 5 rated schools are all Russell group; accounting for the common perception. However, a Mann Whitney statistical test shows only a non-significant difference between Russell group and non-Russell group school, $p=0.13$ (not significant at the commonly accepted 0.05 level). This comparison becomes less relevant with the expansion of the Russell group in 2012, leaving only 9 out of 32 medical schools outside the Russell group.

Fig. 6.1 NSS Q22 average score for Russell group (red) and non-Russell group (blue) medical schools 2005-9



Although most University level 1 staff come from a research background, it is still difficult for them to understand the balance between teaching and research, and they believe that the current allocations are out of balance.

U1 - ... "What are our values, what are we trying to do" and I think that to a little bit of an extent, not entirely but a little bit of extent, the eyes have been taken off the (medical) programme because people have realised that they have got to get investment in research, because actually the thing that sells everything is what happens in REF [Research excellence framework] and that is the thing that drives it, rather than just producing good doctors.

PC – Why do you think that is so because the amount of income that is contained in REF is actually very small compared to the amount of income that is fixed and coming in on behalf of the medical students, so why is this relatively small amount of money changing everything?

U1 – That is a very good question. I think it is because being respected, loved, thought highly of in research is something that gives people a more tangible degree of satisfaction and self-esteem than teaching students. I suspect that students, years

later, won't remember the good researcher but will remember the good teacher and memories will be very much along that line. It is difficult to say. I think it goes back to culture. What are of beliefs, what is it that we are trying to do and for that to be established you need good, strong leadership which has a very clear vision of the what the place should look like …… that is a difficult thing to achieve.

6.3.2 Could it be done better?

The SIFT system did not encourage innovation; subsuming this considerable amount of money into general patient care budgets, either by central hospital or its component Directorates meant that changing the system would pose a degree of risk to patient care resources.

The only locations in which the system could be changed were in associated teaching hospitals, where the SIFT money began to arrive (after the Winyard reform 1995) in relatively small quantities, but it represented new money, clearly associated with medical student teaching. I gave an account of the novel system introduced in Chesterfield, and I interviewed the relevant A1 and A2 level officers.

PC – Did you find any difficulty in the Trust Board Executives accepting the proposition that the SIFT money should be used to support activities in relation to Undergraduate teaching?

A1 – I might have anticipated a great deal of difficulty. In actual fact we have made the case as comprehensively as we can and I have not yet had a meeting in which I have experienced significant doubts about the validity of the position we have adopted. There may have been meetings that were more antagonistic than that that I have not been party to, but we have made a case, if it is okay for me to extend the question, we have made the case on a number of grounds and one ground is the ground of external accountability. We have argued or the Trust has noticed the accountability required from the Funding Strategic Health Authority already and we have been able to be quite quick on our feet in providing an account for the external inspector that has made life relatively easy for the Trust. If they had had to do the work of providing the

account that would have been more difficult for them and we have argued that that accountability will only escalate over time because that is the information that we have. Secondly, we have argued that if we can use the money effectively to grow capacity for teaching then teaching becomes a sustainable and adequately supported activity that in itself may generate appropriate income and that growth in income per student (if you like student tariff to talk Trust language) has always been just around the corner and has never yet fully occurred, but it is an argument that the Trust can understand from a business point of view.

PC – So you are saying that the Trust sees this like an investment in systems which would then allow them to benefit from incoming student tariff?

A1– Yes exactly so. Indeed we have seen very small versions of that already in that adequately supporting student placement capacity in two Directorates has made it possible for those Directorates to take more students with adequate support and of course more students means, even at the current low tariff, means more income but if the student tariff were to grow then it becomes a valid form of business activity for the Trust which of course is an argument that they understand very well. Thirdly, at the time I came into the post there was a very, not an uncommon, but quite a strong element of discontent from clinician/teachers who were committed to teaching but felt that the current clinical tariff-related job planning process put them in a very difficult position and many of those clinician/teachers were senior members of the Trust and so the Trust Board clearly had an interest in making it possible in dealing with that discontent and the obvious way of dealing with that discontent was to separate the funding of teaching activity to which these individuals felt committed from the funding of clinical tariff work which would be a clinical directorate's primary objective…….

And I should say it has become possible more recently to make other, if you like, aspirational cases. At the time that I was originally making this case within the Trust the Chief Executive was from a business background and would largely listen to a business argument. The current Chief Executive, who has only been in post for less than a year, it became clear on meeting him that whilst he is clearly a businessman he understands that clinical and educational excellence is good business so it is possible to

make a case to him that having an environment that attracts and motivates good teachers and good clinicians helps him to provide services and training that will make the Trust competitive in the longer term. In my view very welcome that those arguments are there.

We see that at least in one small locality, a strong business case can be made for the accountability of SIFT, which convinces the executive to implement it. Implementation has secondary effects;

PC – Have you noticed that because you hold accountable in detail for money which is not given in the current item, have you noticed a change in culture from the Directorates when it comes to co-operating with the teaching?
A2 – Undoubtedly. I think I mentioned that as one of my criteria and if that culture change is about to be tested because for the current financial year we have been given I think a one off uplift that amounts to about the same as a consultant's salary and I have a going forward strategy, also agreed with the Clinical Directors and the Trust Board through the same processes , which is in anticipation of a possible very large SIFT uplift based on the re-basing of SIFT and that strategy involves five new consultant appointments which would be paid for entirely by SIFT and would be placed in the five key teaching directorates and those appointments will be qualitative different appointments from my current teachers. Their primary responsibility will be educational. The directorates are enthusiastic in principle because in the model of education I prefer these people don't abandon clinical activity to educate students, they provide teaching activity in the context of delivering very differentiated service work. For example they might be an extension of the teaching clinics that we have already set up with existing consultants, clinics that don't run as efficiently from a service point of view specifically because they recruit a different teaching orientated selection of patients and they allow up to three times as much time in order that students can see patients and receive feedback on their performance. So from a Trust point of view and the Directorates point of view they are from very different sorts of appointments. Without the culture change that has already begun this would have

been inconceivable in 2006 but I am half way through negotiations with the medical directorate where they have understood that this is not just a way of plugging a service gap but without the success of appointment from an educational perspective it is likely to determine whether the model can grow and those discussions have been very encouraging.

It could be argued that the Teaching Hospital Trusts face an entirely different set of conditions and pressures compared to a small unit like Chesterfield. We explored this point in the interview;

PC – …..could I ask you critically, could your system work if you were in a situation of declining income from SIFT and with a deficit in the way that SIFT is spent. It seems that the system works really well when you are in surplus with increasing revenues but do you think that this system is something that can be sustained with decreasing revenues and if you like increasing pressures on how the money is spent?
A1 – I think that the answer is yes but in a very different way and let me expand on that. Having linked SIFT money to educational activity in a decreasing context, it is then where necessary possible to take those monies out in a way that should not and usually will not adversely affect clinical activity. I am afraid from the point of view of being an Associate Director of Teaching I find that an extremely sad situation, but it is one of the arguments that has won the directorates over. I have seen it happen in other services where monies are reduced and because those monies have been holding up clinical service there have been really catastrophic effects. In this instance one of the arguments they see for this model is that appropriate linkages between income and activity means that we won't de-stabilise clinical activity if we have to review funding for educational work, but clearly from my point of view that would be a rather sad situation.
PC – Yes it would mean that the education side would also be contracted.
A1 – The right side is contracted but I would be sad about it. That is exactly right.
PC – Because I think that is the situation that is going to be faced by the large central teaching trusts and they will be looking at declining revenue.

A1– So I mean I think what I would say about that is that had they in place an appropriate set of linkages between SIFT income and educational activity they would not be looking at the same catastrophic effect on services that they are looking at, but it is rather late to say that. I am afraid there is no formula that I can think of which would allow for a growth in educational activity whilst it is reduced. That requires somebody with divine or magical power that I don't have! I think it should be said that from my Trust's point of view that is another one of the motives for doing this, they have tasted the damage of inadequate linkages between funding streams and activity and so they don't want to see that happen.

The point explored is that a credible and honest allocation of SIFT in support of its mission, to support undergraduate education, would protect the Trust in times of financial cuts and cost efficiency savings. However, as such an allocation system has never existed within the large teaching hospital Trusts, this protection was never in place.

6.4 Clinical teaching at ground level

Interviews with level 3 consultant teachers were mostly disappointing, because of the lack of knowledge of funding matters by the teachers. No front line teacher was aware of the amounts that their hospital was receiving in SIFT. Most guessed around single figures of millions; around one fifth to one tenth of the actual amount being received. None of them were paid specifically for teaching. Nearly all of them were willing to teach because they enjoyed it, and valued the interaction with young people; some had higher moral and philosophical obligations to the teaching mission. Of course, there might have been very different information from consultants who did not teach. However, as consultants who taught students did so without regard to economic reward, I could not explore their economic behaviour. In particular, I could not explore incentives and disincentives to teaching. I therefore decided to explore the existing literature of consultant attitudes to teaching medical students in the clinical workplace.

This consideration also applies to interviews with students. We have carried out a large number of student interviews and focus groups as part of other work (Edafe 2013, Edafe 2015), but this material did not focus at all on the role of funding mechanisms in teaching. We also found that students were not at all aware of the funding arrangements for their teaching; for example they did not know the relative amounts of tuition fee and HEFCE grant, and none were aware of the separate SIFT payment to Trusts; they were all under the impression that the University funded the Trusts for their teaching.

6.4.1 Consultant attitudes to teaching medical students

There are a number of studies in this area, including four from the specific NHS context, which appear most relevant to this investigation (Hendry 2005, Korszun 2011, Seabrook 2003, Stark 2003).

Both Hendry and Korszun used a questionnaire methodology, sampling large numbers of consultants. Hendry received 249 responses from 308 consultants working in 8 hospitals, both central teaching Trusts and associate teaching hospitals, in a variety of clinical specialties, associated with the University of Birmingham. Korszun issued an open invitation to all psychiatrists through the Royal College of Psychiatry to complete their SurveyMonkey questionnaire, and received 390 responses in a 3 month period.

Hendry's questions explored contractual requirements and actual teaching commitments as well as their opinions of their students. There was a provision for free text responses, which gave them useful additional data. The main conclusions were:

Nonetheless, the overriding message emerging from the survey is that although many consultants enjoy teaching students, their enjoyment and their ability to deliver high standards of teaching is compromised by time and resource constraints. For many the situation is aggravated by the perceived inappropriate organisation of the clinical

teaching curriculum (firm sizes, the amalgamation of medical and surgical attachments, timetabling clashes), and the inadequate preparation of students for clinical practice (pre-clinical knowledge and attitudes to self-directed learning). Linking these themes is the overarching perception among teachers that neither service (trusts) nor educational establishments (the medical school) – despite their expectation that consultants deliver teaching to medical students – afford teaching the levels of recognition and reward associated with clinical work or research (Hendry 2005).

It is worth noting that only 39% of their consultants perceived that they had teaching duties written into their employment contracts (Hendry 2005).

Korszun's questionnaire mostly sought differences between academic and Trust-employed psychiatrists to various statements about teaching medical students. Many questions were specialty-specific, but of note, 40% of Trust psychiatrists felt that they did not have time to teach students; and 45% of all respondents felt that teaching did not advance their career prospects. There was also widespread support for the appointment of both University and Trust consultants with specific responsibility and expertise in teaching undergraduates.

Stark performed a qualitative study of consultant clinical teachers in a central teaching hospital and fourth year medical students at the University of Leeds. She was seeking areas of agreement and disagreement in the perceptions of teachers and students to teaching and learning; however there are many points relevant to this investigation. There were 13 consultant interviews and two focus groups of 10 students each. She found a very mixed picture with both positive and negative comments in virtually every field she defined; most consultants felt clinical care was their priority, but a few said that teaching was equally important; most enjoyed teaching, but some accepted it as an obligation; some students felt that outpatient clinic based teaching was terrible; others felt it was it most useful part of their

placement. She did extract a degree of disquiet about the lack of commitment to teaching by consultant colleagues;
*I wish that NHS consultants did their undergraduate teaching commitment, which is in their contract…and that the University would actually find out who was and who was not doing their sessional teaching commitments and, if they weren't, that the money was taken away from the teaching hospitals because I feel very strongly that a lot of consultants take absolutely no notice of their undergraduate teaching commitments, and I think that's partly their fault, partly the Trust's fault for putting too many clinical duties on certain consultants in the hospital where they're understaffed, but also the University's fault for not having a big clampdown' (*Stark 2003).

This assumption that the University has primary responsibility for oversight of clinical teaching is a common one amongst NHS consultants. It is often accompanied by a misunderstanding of the University's role in SIFT; that this can be withheld or redeployed by the University; as we have seen, this is far from the case.

Seabrook's study used in-depth interviews with 22 senior consultants from mainstream medical and surgical specialties , chosen to represent the "culture of the school", referring to the amalgamated Guy's, King's and St Thomas' united medical school (now King's College Hospital Medical School). Of the interviewees, none were level 1 (according to my critieria, Chapter 5), 8 were level 2 and 14 were level 3. The interviews were software coded, and the article based on two themes; teaching structure and doctors as teachers.

Again, the teaching structure and relationship between hospital Trust and medical school were obscure to most of their interviewees.
Doctor: We teach a lot of medical students, … that's a lot of effort and my feeling is that unless the medical school are prepared to put some effort into backing us up on that then they can't expect very much in return quite honestly.

Interviewer: Do you feel as though you're part of the medical school?
Doctor: No, absolutely not. I'm part of the hospital. The medical school don't pay my wages, they've got nothing to do with my contract. They've sent us a whole lot of medical students and as far as I can see that's about it quite honestly(Consultant, Surgical and Related Specialities) (Seabrook 2003)

This feeling of alienation and abandonment was accentuated by a misunderstanding over the SIFT funding mechanism.
There was a general awareness among doctors about the existence of SIFT, but ignorance about the amount involved, or how it was used. There was resentment that it was not used to support teaching in a way that would help them, either through direct payment for teaching, which was advocated by a few, or by rewarding departments. Most doctors felt that the latter course was appropriate, with departments with heavy teaching loads getting academic posts or extra teaching resources (Seabrook 2003).

There appeared to be very serious problems with the relationship of teachers to the medical school generally. Seabrook analyses this as lack of reward/recognition for teaching, lack on inclusion or influence on curriculum, and resentment towards medical school employed doctors, who were perceived as doing less teaching than their NHS colleagues, in favour of their research activities. Seabrook's conclusions are rather damning, but are echoed even a decade later in both institutions that I researched.

A large number of factors raised by doctors, and confirmed by the researcher's observations, suggested that teaching received little overt recognition within the school during the early part of the research. This was shown by a management structure and culture which afforded, for example:
• *a lack of protected time for teaching*

• inadequate resources to facilitate effective teaching
• poor communication between the medical school and its staff resulting in staff feelings of exclusion
• lack of promotion opportunities based on teaching.
These factors appeared to give a message that teaching was not particularly important within the school. Doctors lacked fairly basic requirements for teaching, and the funding, organisation and reward systems effectively promoted other activities. The medical school was perceived by teachers not to take a sufficient lead in teaching, and there were signs of division between NHS and medical school teachers (Seabrook 2003).

There is even an echo of the management classic "When good teams go wrong" in Seabrook's work. She describes teachers becoming frustrated about paying small sums for teaching resources, such as patients' travelling expenses, or making slides for lectures. They were told by the hospital and medical school that it was the other's responsibility and ended up footing the bills themselves.

One of the cardinal signs that management has abandoned its workers is to leave them to fund their own activities within a minimal budget. Levy describes a classical case study, from the sewage treatment plant in Boston Harbour.

They performed difficult, dirty, dangerous work without complaint, they put in thousands of hours of unpaid overtime, and ***they even dipped into their own pockets to buy s****pare parts. They needed virtually no supervision, handled their own staffing decisions, cross-trained each other, and ingeniously improvised their way around operational difficulties and budgetary constraints. They had tremendous esprit de corps and a deep commitment to the organization's mission. There was just one problem: their hard work helped lead to that mission's catastrophic failure.*
The team that traced this arc of futility were the 80 or so men and women who operated the Nut Island sewage treatment plant in Quincy, Massachusetts, from the late 1960s until it was decommissioned in 1997. During that period, these exemplary

workers were determined to protect Boston Harbor from pollution. Yet in one six-month period in 1982, in the ordinary course of business, they released 3.7 billion gallons of raw sewage into the harbor. Other routine procedures they performed to keep the harbor clean, such as dumping massive amounts of chlorine into otherwise untreated sewage, actually worsened the harbor's already dreadful water quality (Levy 2001).

Seabrook's study using long interviews with senior staff over a prolonged period of time, focusing on the culture of education in the school paid much richer dividends than my more limited approach of using funding-based questions; which foundered at the early stage of teachers' lack of knowledge of the funding mechanisms, and also, primarily, because that funding was not actually part of the teachers' pay.

Seabrook's work, backed up by the larger but cruder study from Hendry, casts a fairly negative light on the teaching structure in the NHS. It confirms an alienated group of teachers, caught by the competing demands of clinical care and the other mandatory supporting professional activities, who teach almost in spite of the lack of incentives, facilities and reward structures; all overseen by an uncaring management who pay lip service to teaching, but act in an extreme niggardly fashion in their support of teaching. The irony of this picture is that teaching supplies a major funding stream to that management, who nevertheless are distracted by other priorities.

6.5 Scenarios of teaching malfunction

The use of three scenarios of teaching malfunction worked very well, for level 1 and level 2 interviewees. All of them could actually identify such scenarios from their own experience, and this often led the interviewees to volunteer even more extreme examples of malfunction in recent times.

Is teaching delivered? Do students tell us repeatedly that teaching doesn't take place,

that they are abandoned, that nobody comes to see them, that they can be on a Unit for two weeks and they still don't know who the consultants are……..
we get complaints from students about the fact that they spend in excess of £20 travelling to a place for an afternoon and nobody came to see them, nobody met them, nobody taught them. A secretary said why are you here and they come back and they complain to us and we get them to think about why it is that nobody turned up to teach them and they come back with things like "well doctors are very busy and emergencies happen and it is possible that people are called away to emergencies so you know even though I wasted £20, yes I suppose that is okay" (U1)

6.5.1. Teaching refusal

The scenario is one of a clinical unit which turns away its allocated students because its consultants feel that they are too busy clinically to take the students onto the unit.

PC - The first scenario is that of a teaching refusal. The clinical unit in a hospital that has students attached to it decides that due to service pressure they cannot accommodate them. (Are you smiling because I believe you have met this situation before?) What can be done and what is done?
U1 – Yes. At the moment nothing can be done. At the moment what we do is we have a sub dean system which we have, they are called Hospital Sub Deans, they are people nominated from the hospital, they get paid one session a week from the medical school to deliver teaching or to make sure that teaching is delivered. They don't necessarily have to do the teaching themselves and so we would say to the sub deans "we are not getting any teaching from this unit" and they would often get back to us to say "but I have been down to the Unit and they have just told me to stuff off basically" because they are busy and because of service pressures. I don't know what I can do to get them involved again but they have just said "no". There is nothing we can do, there is no sanction, we can't withdraw honorary status, you know so these might be units where there are honorary associate clinical professors and you know …..

PC – Probably too small a part of the system to actually affect their SIFT.
U1 – Absolutely. Well you know because there is no link between SIFT and their teaching activity.

However, the students still exist and still require teaching. They will need re-allocation to another unit, increasing their teaching pressure.

C2 – If it happened at the start of a year my first thought would be to try to speak to the rest within that speciality to find out if they could have a kind of sponge effect and mop up the excess, and we do have some chaps who are enthusiastic about teaching and they will if they can.
PC – They will always help?
C2 – They will always help, they are can-doers. If it happens half way through, if I couldn't sort of take on the extras for any reason, I would need to notify the Medical School and say.....
PC – Has this happened to you?
C2 – No not really. Because what I do on an annual basis is I have my numbers agreed with individual units to ensure that they know what I expect …
PC – And nobody has dropped out halfway?
C2– No, on one occasion there were problems because there was an illness so all of a sudden we were two consultants down and didn't have a locum in place so almost understandable. I managed to, in that instance; to have the other hospital taking the slack so there is a bit of leeway, probably because I have got two hospitals that I can turn to

In one interview with a level 1 interviewee, we explored a real case in which teaching refusal had repeatedly occurred. The net effect of this was that the students were taken back into the medical school and taught using clinical skills staff and simulated patients. Eventually the unit had an additional consultant funded; uniquely, that consultant actually had a programmed activity (PA) half day paid every week of the year for undergraduate education. This had the effect of restoring

limited ward sessions for the students; but the emergency program using other staff and simulated patients was preserved, and continues to the present. Therefore, the net result of teaching refusal is to reward the refusal, by funding extra staff; and to penalize the willing, who take up the extra students, often without much reward. This creates a strong perverse incentive to refuse teaching on grounds of being too busy with clinical activity.

6.5.2 Teaching disengagement

This is a scenario where a clinical specialty group declines to provide teachers for lectures or small group sessions, which are scheduled as part of the core medical school curriculum.

PC – So moving on to the second scenario. If a larger speciality group, say one of your …ologies, decides that actually they don't want to provide small group teachers or lecturers, they don't mind having the students about but they don't really want to engage in the teaching. Is there anything that you can do about that? Who would you talk to?
A2– What type of group are we talking about? Orthopaedics or general surgery something like that?
PC – Let's just say one of the smaller groups. Let's talk about rheumatology or something like that, let's say that they decided that they want to disengage from teaching because they don't see that as important to them and they have got other things to do. So I am taking your sponge effect [reserve teachers] away.
A2 – I know you are removing my sponge effect!
PC – Would you have any options at that point?
A2 – Probably not, I would always turn to the sponge effect.
PC – So they can make unilateral decisions and impose them upon you and you have to clear up the mess left after.

A2 – I would do but can I say I don't think, because of the relationships that I have, that anyone would ever do that.
PC – No because you would have their guts for garters would you?
A2 – I think there would be a bit of respect that I would need notice of that or they would see it out until the end of the year. I mean this kind of thing actually happened to me last year before they introduced the musculoskeletal block with rheumatology attached to it.
PC – Oh I am sorry, I picked that out at random.
A2 – I know you did and the rheumatologists were part of the general medicine teaching, but they were pulled into another block so they said to me "I can't work two lots of students". That's fine and I can understand that. So I had to then go back to general medicine and say "look I don't want to drop our numbers here" so we got round it.

This associate director of education in an associate teaching hospital is certain that the personal networks that she relies upon will always come to the rescue in this unlikely event. However, there are no other pathways open to her, except to use her influence to ensure that this never happens. Other interviewees had no trouble in imaging this sequence of events.

PC - How about the second scenario which is more one of disengagement. A clinical unit or a medical school unit declines to provide lecturers or small group tutors in the speciality area that they are nominally responsible for. Is there a way of dealing with that?
U1– Yes and that has happened but we have never ever not been able to provide teaching in that speciality area because we have always managed to find one or two key people who would say that's incredible, that's impossible students cannot graduate without pathology teaching, do you not know our speciality is the most exciting speciality in the world and do you know what. I will do it in my spare time if I have to. So we have had an incredible phenomenal response from some amazingly enlightened consultants, particularly in areas like pathology and I can think of one relatively young

consultant who has taken almost the total burden but actually what she has done is she has managed to re-engage people who had been lost to teaching for all sorts of different reasons and we have also managed to involve middle grade staff in teaching through individuals like this particular consultant in ways that we hadn't before. So yes quite often we have had a kind of initial response which is "on your bike" but then people have come forward and said "no actually"……..

The concern with ad hoc solutions , that "something will turn up" is that although it plugs a gap, the whole teaching structure becomes totally ramshackle. I explored the issue of sustainability, which is most relevant to this argument.

PC – Have you found though that sometimes this becomes unsustainable because somebody takes it on but they can't sustain it for that long and also it heaps burdens upon the willing while rewarding the unwilling?
U1 – Your first point is my biggest issue …….. my biggest fear is that we have got a system that is unsustainable. We have got these really enthusiastic people who have been doing it for two years now since our curriculum reform and I think we are going to hit a point where they say they can't do it any more or my medical director says we now need to receive funding or you know I am really just exhausted and my kids are at a different stage. You know all sorts of things. I think it is unsustainable because it isn't funded, it isn't formalised and people aren't resourced, they are not supported by their colleagues and by their medical directors and they are not valued by the university for all sorts of reasons even though we do try in that one. I think you are absolutely spot on that we run the risk of it being unsustainable and the other issue, of course, is that yes we are rewarding the people who would kind of say to us "I couldn't give a toss basically, I do my job and the students gets taught don't they so what's the problem?" And that is another issue that needs to be sorted out with the new accountability structures for SIFT.

These were very big statements, given the seniority of the interviewee. No funding, no formal structure, no support from colleagues and supervisors and not valued for

their work translates into a scathing indictment of the current structure for teaching. The proliferation of work-arounds and short term solutions to structural problems is likely to store up serious problems for the future.

6.5.3 Teaching quality

A teaching unit has unacceptable reports from students and evidence that it is not timetabling, meeting or supporting students that are allocated to the unit.

PC – Well the third scenario is that of unacceptable quality. If you are finding that there is a consultant or even a group of consultants whose quality is not acceptable and the students are not happy, the medical school are not happy because they are receiving grief from the students and you yourself know that the timetabling and the supervision is not what it should be. How would you deal with that?
A2– Speak to the Consultant. Straight to them.
PC – So you would go to their office and talk to them about it.
A2– I would arrange to meet with them as soon as possible.
PC – What kind of reactions would you expect?
A2– On the times that I have done that it has actually been pretty positive. I mean I don't know if that is because of the way I approach it. I don't go in in a confrontational way, just kind of almost just saying we have got a few problems here and there and then allow them to tell me if they have got any issues themselves. Quite frequently, unless it is serious issues which I have not had to deal with, there has usually just been a breakdown in communication somewhere along the way and it is just a matter of getting them back together. If it is a student/educational supervisor issue, sometimes when we switch years for example, if general medicine have had a fourth year student and all of a sudden we change to a third year, they kind of forget that the expectations they have of a fourth year will not be fulfilled by the third year. The third year then takes that on board that he is expecting too much and I know nothing. So the student has to be reassured that actually you know please don't feel demoralised by this but I also have to then speak to the consultant. They really just

need to be reminded in a lot of occasions and I have never come across a poor reaction from anyone I have spoken to.
I remember once many many years ago of one orthopaedic surgeons who was not pleasant to his students and I spoke to the Clinical Director and he is no longer involved in teaching, which I think is good for everyone.
PC – But in a larger picture though that has a very odd effect doesn't it. Because what it does is that it rewards the people that are bad by taking some their burdens away and it actually increases the burdens on the people that actually are very good.
A2– I know where you are coming from but I personally don't think the chap could have been rehabilitated, re-trained and I was quite happy at that moment in time and the student group feedback was better after that.

Again this experienced associate director of teaching was using personal networks and influence to try and achieve a positive outcome. There was no mechanism through employment or financial mechanism to deal with this failure.

PC – The final scenario is that of poor teaching quality. I am sure you have had plenty of these. The clinical unit has poor reports from student attachments including these types of failures that you were talking about, timetable failures, poor senior contact, no supervision and cursory assessment. What mechanisms do you have to try and correct these situations because these are very damaging for the school aren't they?
U1– And actually they are the most tricky, most challenging areas of our working life I think in terms of the dynamic and the interface with our teaching colleagues in services because you know what happens is that we send out, usually unedited but collated evaluations, we take out swear words but that is about all. You know we have things like this consultant should never [expletive deleted] be allowed to see another student in their lives and we have to be very careful with that kind of feedback, but that's really an issue that we need to take up with the students about how to be constructive with their feedback. Of course we send negative feedback and you may have got 100 pieces of positive feedback from 100 different students and then there is two students who say you are rubbish and what we get straight back is "OK well I'm

not going to teach then" and we kind of expect that so we are ready on the phone and quite often we will phone people up and say your feedback is on its way. You are having to kind of nurse people all the time but where it is poor I don't think we have had a failure at all in probably about 15 years. We have had some really rocky times with people getting personally really upset and really hurt as a response to poor feedback, but actually people have said "OK so what can we do to make it better?" And we have gone in and helped them sort it out. ..... So sometimes we have had those sorts of situations and we have had to say to the Consultant "look you know this is a bad situation" and this is the way things are. We have still got an on-going case with somebody actually going to the Ombudsman because they feel that we complained about them as a teacher in a negative evaluation but by and large, we almost all, except that one with the Ombudsman, have turned teaching around and people have said "you know what, I feel much more satisfied in my teaching".
PC – You know I think anybody coming into our kinds of organisations would find it quite remarkable that the staff who deliver are neither paid nor accountable, and actually have to be nursed through their primary activity and that they can't be replaced and they can't be promoted and they can't be demoted. Anybody that deals with organisations would find our organisation really quite remarkable.
U1– Absolutely, yes. It would take a few anthropologists working for a long time to work out the culture within our organisations and within the groups that they interface with. Absolutely and your initial question about accountability, well you know I think we have decided that it didn't exist really.

6.6 Five steps to failure

Developing Paul Levy's theme (see above, section 6.4.1), he describes "Five steps to failure" which serves as a useful framework for analysis for the teaching difficulties described by consultants (Levy 2001). He has shared his experience as director of the public authority responsible for sewerage in Boston with a wide range of industries, and discerned a common pathway that failing teams tend to take. This

pathway is predicated on a dedicated, cohesive team on the ground, coupled with distracted senior management who are focusing on other priorities; a very suitable set of preconditions for medical education in the NHS.

1. Management, its attention riveted on high-visibility problems, assigns a vital, behind-the-scenes task to a team and gives that team a great deal of autonomy. Team members self-select for a strong work ethic and an aversion to the spotlight. They become adept at organizing and managing themselves, and the unit develops a proud and distinct identity.

There is strong evidence for this, in the level 2 interviewee's account in the previous chapter, of building a small team of teachers through networks of personal knowledge an obligation. The teaching staff of the University can also be viewed as a small team trying to keep their mission afloat, while most of their colleagues are occupied with research and postgraduate studies.

2. Senior management takes the team's self-sufficiency for granted and ignores team members when they ask for help or try to warn of impending trouble. When trouble strikes, the team feels betrayed by management and reacts with resentment.

There was strong evidence of this in the U1 interviews

3. An us-against-the-world mentality takes hold in the team, as isolation heightens its sense of itself as a band of heroic outcasts. Driven by the desire to stay off management's radar screen, the team grows skillful at disguising its problems. Team members never acknowledge problems to outsiders or ask them for help. Management is all too willing to take the team's silence as a sign that all is well.

This is probably still in its early stages. University teachers are unwilling to admit failure, which reflects badly on their reputation. Most problems therefore stay, to some extent, hidden from view. NHS teachers become increasingly disengaged, but the University staff responsible for the course manage to paper over the cracks by a

series of work-arounds, and the entire structure becomes increasingly ramshackle.

4. Management fails in its responsibility to expose the team to external perspectives and practices. As a result, the team begins to make up its own rules. The team tells itself that the rules enable it to fulfill its mission. In fact, these rules mask grave deficiencies in the team's performance.

This might well represent the next stage of development for undergraduate medical education, if the new funding processes do not reverse this. Possibly some of the experiences recounted in Seabrook and from the interviews in which teachers feel that they have to self-fund essential teaching expenses are a big step in this direction.

Possibly external quality assurance has a role here. That only applies if the quality assurance is concerned with the quality of teaching, rather than with process. The current GMC process does meet with selected medical students and clinical teachers, but the findings of inadequate teaching in some locations does not weigh heavily in the current judgement of overall quality. Certainly there is no oversight by quality assurance inspections into the balance of spending of funds for undergraduate teaching.

5. Both management and the team form distorted pictures of reality that are very difficult to correct. Team members refuse to listen when well-meaning outsiders offer help or attempt to point out problems and deficiencies. Management, for its part, tells itself that no news is good news and continues to ignore team members and their task. Management and the team continue to shun each other until some external event breaks the stalemate.

Fortunately there has been no catastrophic failure to date, as this penalizes students, patients as well as the more culpable management figures.

6.7 Elision

The key mystery is how SIFT moved (slid, elided) from being a payment for the excess costs of teaching hospitals to a payment for most things in the hospital with the startling exception of paying teachers for teaching students.

When SIFT was first introduced, there was an idea about the rational distribution of resources; that the extra expenses of teaching hospital should not disadvantage them in a market-led, but nationalized health system. This was accentuated by the further marketisation of the NHS, particularly the purchaser/provider split and the necessity to introduce tariffs for payment. This removed much of the justification for excess costs of the teaching hospitals, which by doing more complex medicine, should have had those excess costs covered by tariff. However, a further justification for SIFT, to cover indirect costs of students in the NHS, was put forward, although it was recognized that the sums of money were far too large for this purpose. In reality, SIFT only continued as a means of preserving stability and, consequently, the status quo, which advantaged some hospitals.

It was this embedded problem, that the status (and expenses) of the teaching hospitals were not actually a function of teaching students, that lay at the heart of the discrediting of SIFT. SIFT was not about students, but about power structures. Those senior managers who were responsible for the teaching of medical students had very limited access to SIFT, and no influence over how the money was spent. Their budgets amounted to a tiny fraction of SIFT. The fact that Universities behaved in a parallel way with respect to HEFCE money compounded the situation. Universities used a minority proportion of HEFCE teaching money (and now, tuition fees) for teaching; they preserved a premium for clinical teaching while leaving most of this activity to the Trusts. These behaviours provided an excuse for Trusts and Universities to attempt to relinquish their responsibilities to each other, while the difficulties with teaching mounted up between them.

Chapter 7

Understanding SIFT

I have sought understanding of why SIFT developed into the system that it did, in the field of microeconomics. Microeconomics is the study of economic behaviour of individuals, groups and organizations in a constrained world; it considers individuals as suppliers of labor as well as consumers of products; and organizations as suppliers of products and consumers of labour. In the context of higher education, the product is education, and generally our focus is on teachers. Although economics has been demonized as the "dismal science" it does try to reach rational explanations for why individuals and groups act as they do. One of the simplifying assumptions of economics is that individuals and groups act rationally, generally in their economic interest. Microeconomics could be regarded as being about optimization decisions by individuals or groups in response to limited resources, and reflect what actually happens on an individual scale. In reality, there are many exceptions to this simplification, and the field of behavioural economics has developed in order to seek explanations about the influence of human psychology on economic behaviour. I will seek insights into this puzzle in these areas.

7.1 Motivations for patterns of SIFT usage

We have seen very different attitudes to SIFT allocation from central teaching hospital Trusts and from District general hospital Trusts. Some of this was purely financial; in that the majority of SIFT for central Trusts was in the form of facilities SFIT (80%) and a minority was clinical placement SIFT; whereas the reverse was true for district Trusts. We have seen that clinical placement SIFT was only lightly accountable, checked against student weeks and provision of basic needs. As facilities SIFT required no direct linkage to student numbers, it was even less accountable than clinical placement SIFT.

Therefore central Trusts could place less value on clinical placement quality, as their funding was less accountable to the placement. In contrast, district hospitals generally took their teaching function on clinical placement more seriously, as they received proportionately more funding from clinical placement linked SIFT.

There is evidence in favour of this analysis. For example,
However, students reported considerable variability in the organisation and content of clinical teaching, ***particularly in the central teaching hospitals****. For example, during the Phase 3 clinical science attachment some students were reportedly discouraged from attending wards and clinics due to the high student numbers already present. Again, we identified a dissonance between student experience and the School's view of the learning experience in these hospitals……We require the School to put in place a quality improvement strategy which will decrease variation in the organisation and content of clinical teaching* (GMC 2008).

Stark performed an unpublished review of all available GMC QABME reports in 2003-8, and found echoes of this in almost every report; that the standards of clinical placement in central teaching hospital were commented upon less favourably than other placements (Stark 2008).

7.2 Rents

David Ricardo, one of the founding names of classical economics, first elaborated his theory of rents in circa 1809. He used the example of agricultural land of decreasing fertility brought into production as the price of corn rose; therefore accruing an inbuilt advantage to the owners of the most fertile land (already in production before the price increases). The concept has been extended into the idea of "economic rent", which is defined as excess return above normal levels that would occur in perfect, competitive market, or, more rigorously, a return larger than the opportunity cost to the owner (Tollison 1982).

Familiar examples of economic rent include patent owners and licence holders. Notwithstanding the effort and investment made to secure the patent or licence, once these have been obtained, the consequent return has a flavour of "money for nothing"; and is likely, as per definition, to exceed the cost of obtaining it.

Undergraduate finance, for both universities and the NHS, could be regarded as a type of rent. It is a rent granted by government on the basis of the status quo at the time of inception; reflecting the prestige of both universities and teaching hospitals, and government's wish to continue with these elite institutions as currently constituted. The rent exceeds any reasonable cost of providing student education in an ongoing fashion, but is a really a reward for the historic opportunity costs of achieving their prestigious positions.

Therefore SIFT and to a lesser extent HEFCE-T could be regarded as rents to the NHS and universities respectively. Rents are not just transfers from government to institutions; rents have costs. These costs are not just the historic opportunity costs referred to previously; there are also social costs associated with rent seeking, and protection of rents already gained. Outside education, these costs may be more obvious; the costs of the efforts to obtain and protect rents, through lobbying, legal activity, insurance and justification procedures, such as reporting, quality assurance, and the familiar panoply of regulatory bureaucracy of the 20th-21st centuries (Tollison 2012).

I wish to introduce a novel perspective on the social costs of SIFT and medical HEFCE-T as rents. I propose that the social cost of these rents is their avowed purpose, medical student education. These grants are justified politically by the teaching of medical students. As they are rents, the excess returns are used elsewhere, usually still within the mission of health care or higher education; but generally towards maintaining the prestige that gave rise to them in the first place. As this rent-taking behaviour is officially justified, by incorporating rules such as *not a payment for teaching as such* (Winyard), it promotes increasing the excess return

by hollowing out the primary, educational purpose of the funding. I propose that the rent-like nature of the funding, which is well known to both payers and recipients, made it possible, and even promoted, recipients to engage in extreme rent-taking, including maximizing their return away from its primary mission.

7.3 Moral hazard

Hamlin discusses the principal/agent model as a guide to understanding rent seeking in higher education. The agent is the provider; the NHS or university in our example, and the principal is the government.

The moral hazard problem can be thought of as deriving from the manipulation of some variable by the agent, which is less than fully observed by the principal, in order to exploit the informational advantage held……If the principal cannot observe efforts directly, so that payments to the agent cannot be conditional on the level of effort, the agent will supply less effort than would be optimal…. (Hamlin 1994)

Moral hazard has been much in the news in the early 21st century. It has been widely used to understand the behaviour of financial institutions, which has largely been responsible for the phenomenon that is already referred to as the Great Recession 2007-present. Lenders make loans, and the most risky loans have the potential for the highest returns. Banks can take big risks, which will pay handsomely if the investment turns out well, but rely on the taxpayer to bail them out if things go badly. So moral hazard can be defined as an economic case of power without responsibility; where one person makes a decision about risk and resources, confident that another person will bear the cost if things go badly.

The NHS had a moral hazard with SIFT payment. Apart from its rent-like nature, which encouraged extreme rent-taking, it was also a moral hazard. Although the NHS is charged with the main part of medical student education, the universities

carry responsibility for the output, and are regulated by the QAA and GMC for this purpose. There was no regulation of the NHS; at worst an individual hospital Trust could have lost its SIFT funding, but this has never happened to a central teaching hospital, even though, as we have seen, most of the problems with teaching quality were within those large institutions. There is a flavour of "too big to fail" and of penalizing patient care if financial penalties are exerted on behalf of teaching. Therefore it is not surprising that problems with teaching exist in NHS clinical placements, and that the teaching function is not a priority within the NHS.

Moral hazard is often accompanied by adverse selection. That is, where there is a principal payer and an agent provider, the principal is manipulated into acting against its interests, in this case, paying a rent to the provider. If the agent knows the cost of a particular activity, but the principal only knows that that cost should not be above some (higher) figure, the agent will be able to charge a price that more than covers the true cost, and approximates to the higher figure. In the case of SIFT, the higher figure was the excess costs of teaching hospitals in the late 1970s, included in the RAWP calculations. In some ways SIFT can be seen as an ultimate long-lasting example of adverse selection, in which teaching hospitals manipulated governments into payment of large rents for nearly 40 years.

The existence of moral hazard and adverse selection in the simplest analysis casts some light on the optimal regulation of SIFT and HEFCE-T. The principal is aware of both problems and wants to minimize rents and to build in incentives to provide good quality teaching. Typically, regulation to achieve these ends pull in opposite directions, and can be classed as high-powered and low powered-regulation.

A high-powered regulatory scheme would try to promote effort in teaching through incentives, rather than claw back rents. This would take the form of a fee fixed to student numbers. As long as the fixed fee is greater than the actual cost of education, this would incentivise teaching, and is close to the clinical placement SIFT grant of district hospitals. A high powered mechanism would be expected to perversely

threaten quality of teaching unless this was closely specified. In the context of the district hospital, as the clinical placement SIFT funds were relatively new, they still feel the need to justify them. There may come a time in the evolution of placement payments in district hospitals where they become taken for granted, and less effort is put in, and rents maximized.

A low-powered regulatory scheme tries to minimize rents, but provides little incentive to teach. This takes the form of a cost plus regime; where a fixed fee in addition to teaching costs is paid. As the fee is fixed, there is little incentive to improve effort in teaching; but the remuneration is cash limited, so rents are not larger than planned. This is similar to teaching hospital SIFT, except that the fixed fee, for facilities SIFT, was unusually generous, being up to four times greater than the teaching (clinical placement SIFT) fee. This disproportion had the effect of actually lowering the incentive to teach, as we have seen (Hamlin 1994).

7.4 Behavioural economics of income and expenditure

Classical economics assume that the human actor, be it an individual or institution, acts perfectly rationally, in their self interest, within regulatory boundaries. This might seem too idealistic in some respects. Behavioural economics tries to address anomalies in real life observed economic behaviours, which do not accord with enlightened self-interest, by drawing on the fields of cognitive and social psychology, analysis of the emotional response, and even evolutionary science. The rapid acceptance of this field is reflected in the award of the 2008 Nobel prize to Daniel Kahnemann, one of the founders of the field (the other, Amos Tversky, pre-deceased the award).

*The standard economic model of human behavior includes three unrealistic traits—unbounded rationality, unbounded willpower, and unbounded selfishness—all of which behavioral economics modifies (*Thaler 2007).

The finance of medical student education is a case study of the concept of fungibility. This concept is that "money is just money"; that the individual or institution treats all cash income as interchangeable, and spends according to their individual budgetary priority, rather than through any sense of obligation to where the money came from. It is actually an assumption of rational economic behaviour.

Thaler questioned this assumption, showing that in many circumstances people behaved as if income was paid into separate (mental) accounts, each for a different purpose, and constrained by the characteristics of the income source, regular versus windfall, high value versus low value (Thaler 1990, 1999). If the individual tends to respect the source and label of a given cash transfer, why does the organization (in this case, the NHS Trust or university) treat this cash transfer (SIFT, HEFCE-T) as fungible?

Beatty and colleagues analysed the spending patterns of a sample of 6933 households in receipt of the Winter Fuel Payment (WFP) in Britain 2000-8. The WFP is an annual cash transfer from government to households containing a member over the age of 60, paid as a lump sum in November of each year (£250 or £400, with the larger sum for households with a member over 80 years of age). They found that although only 3% of the household total expenditure was for fuel, between 13-61% of the WFP was used for fuel costs. They interpreted this data as showing that labeling an unconditional cash transfer would stimulate households into "correctly" using that money. It is equally interpretable as showing that unconditional payments are diverted, at least 39%, and up to 87%, to other household expenses (Beatty 2011).

Abeler and Marklein take this concept further in a controlled field experiment. Using a restaurant setting, they analysed a sample of 552 guests who were given, on arrival, an 8 euro voucher, either for the whole meal (control) or specifically for beverage (label, experimental group). They found that the label group spent 18.94 Euro per person on beverages, 3.9 euro more than the control group (Abeler &

Marklein 2010).

The main difference between these studies is the size of the cash transfer in relation to the anticipated size of the expenditure. If the transfer is just a small proportion of the cost, the label does guide "correct" spending. However, if the transferred sum is large, especially if it is larger than the anticipated cost of the labeled good, this encourages income diversion into other areas. This latter situation is analogous to the fate of SIFT income.

Christiaensen and Pan have an interesting further variation on this theme. They studied expenditure in rural Chinese households who derived their income from a mixture of sources; paid employment, family business (primarily agriculture, animal husbandry, forestry and fishing) which are considered as earned income: and remittances, gifts and government subsidy cash transfers, considered as unearned income. They found that households used a greater proportion of unearned income for consumption, and more of their earned income for investment and savings. The source of income, expressed as the amount of effort needed to gain it, is a major influence on the way it is expended. In the case of SIFT, this is a clear type of unearned income, requiring only minimal effort in order to gain quite large sums of money. It is therefore all spent on the general organizational budget; its lack of accountability being a bonus for the organization (Christiaensen and Pan 2010).

There seems to be a form of mental accounting of SIFT money in different types of hospital Trusts. District hospitals received clinical placement SIFT relatively recently, after the Winyard reforms of 1994. They tend to treat this income as new, risky income, and tend to try and preserve it, by showing the funders what a good job they did with it. To achieve this, they must treat the income as non-fungible, and spend it on its nominal purpose. Central teaching hospital Trusts by contrast, have had SIFT and its predecessors for most of the previous century; their attitude is that this income is "old money"; an entitlement, something like an endowment or annuity; and requires little justification for its fungible use. This model predicts

that as district hospitals get used to their stable new income, it will gradually morph into more fungible and less accountable usage models. Although there are plenty of anecdotes, I am not yet aware of good evidence for this actually happening.

There are interesting insights from the study of the fungibility of foreign development aid. Pack and Pack (Pack 1990, 1993) have contrasted the uses of foreign aid in the Dominican Republic and in Indonesia. In the Dominican Republic, confirming some of the worst fears of aid donors, it appeared that 88% of foreign aid was diverted from development investment to debt repayment and deficit reduction; that actually total development expenditure decreased by about 5c for every $1 of aid income. In contrast, in Indonesia, aid stimulated development expenditure, in line with the purposes of the donors, and had a positive effect on total revenues. Both recipients were sovereign nations and therefore not formally accountable in any legal sense for the money (although their behaviour would have predictable effects on further aid donation). In their analysis, the key difference accounting for the behaviour of these nations was the overall fiscal balance; Indonesia adopted a conservative, balanced budget policy (bolstered by new oil income) but the Dominican Republic was chronically in severe deficit, and it became a priority to divert any income to service that deficit (Pack 1990, 1993). The resonance of their analysis with the situation of the NHS, which has stumbled from one fiscal crisis to another in the last 20 years, are very obvious.

We can therefore discern why SIFT is considered fungible by its recipients. It is a large, unearned income, with minimal accountability, a remnant of the high-trust era of higher education funding. This discourages the recipient from spending it for the labeled purpose, particularly as there is unlikely to be any sanction for spending it in any other way, particularly when those alternative spending priorities, such as winter bed crises in the NHS, are desperate. Fungible funds are exempt from mental accounting. Fungibilty by itself does not define how the funds are used; other factors such as the moral structure, political beliefs, and the general economic situation of the recipient will influence that; fungibility is just a permissive factor.

7.5 On the folly of rewarding A while hoping for B

Steven Kerr, a management professor, published a classic paper with this title in 1975, and it was reprinted on its 20th anniversary, on behalf of the American Academy of Management. The author writes, in the 1995 postscript,
…numerous people claimed to have read and enjoyed it, but I wonder whether there was much in it that they didn't already know. I believe that most readers already knew, and act on, in their non-work lives, the principles that underlie this article… (Kerr, 1995).

Kerr simply outlines that most humans work for reward, and concentrate their work on where reward is concentrated. This might also exclude work on unrewarded areas, of course, dependent on the nature and attractiveness of the rewards on offer. He goes on to illustrate fouled-up reward systems in many fields, including politics, war-fighting, medical malpractice, sports, and the Universities.

…professors often find that they must choose between teaching and research-oriented activities when allocating their time. Rewards for good teaching are usually limited to outstanding teacher awards, which are given to only a small percentage of good teachers and usually bestow little money and fleeting prestige. Punishments for poor teaching are also rare.
Rewards for research and publications, on the other hand, and punishments for failure to accomplish these are common. Furthermore, publication-oriented resumes usually will be well received at other universities, whereas teaching credentials, harder to document and quantify, are much less transferable. Consequently, it is rational for university professors to concentrate on research, even to the detriment of teaching, and at the expense of their students. (Kerr, 1995)

HEFCE-T follows Kerr's university prescription very closely. We have seen how academic staff devote the majority of their time to research activities, and much less

time to teaching, which is the reverse of the contribution of these activities to their salaries (chapter 2).

SIFT is a really extreme case of this example. There are virtually no rewards for teaching in the NHS, and no punishments for failing to teach (see interviews). However, patient care activities are now carefully costed, and bring in revenues to the Trust, and contribute to the doctor's salary directly. So, from the doctor' s viewpoint, there is very little reason to teach.

From the organisation's viewpoint, SIFT also carried disincentives to teach above a certain minimal level. As long as sufficient teaching was done to avoid an outright student revolt, there was no reason to devote more resources to student education. SIFT regulations actually pre-excused the organization to divert these resources to more rewarding areas. In Kerr's explanation, the cause of the foul-up is simple hypocrisy. *The rewarder may have been getting the desired behavior, notwithstanding claims that the behaviour was not desired.*

Kerr's point is that rewarding A while hoping for B does not work. However, the result might be more negative than just failure of the mission. The case of SIFT went further than that; rewarding A (variable-income generating activities of the Trust) in the name of B (education) actually caused B to fall into disrepair.

7.6 Why clinical teachers teach

Even in the climate engendered by SIFT, teaching occurs. Students attend, and learn, and graduate. There must be teaching activity going on, and notwithstanding the many negative comments about NHS teachers (Stark 2008), some very positive examples also exist.

Dahlstrom studied a group of 101 Australian medical clinicians, and Hoban questioned 656 faculty members of an American university faculty of medicine

(Bowman Gray) to elicit their motivations for teaching. (Dahlstrom 2005, Hoban 1996) They came up with rather similar answers. The main factors which positively influenced clinicians to teach were intrinsic issues, such as personal satisfaction, altruism, skill development and truth seeking. Many had been inspired by past teachers, and were "giving something back".

Personal financial reward did not come into the Dahlstrom study, as it was not one of the statements that was offered to study participants. However, Hoban's faculty did favour a programme of teaching incentives, including financial rewards, which, interestingly, were more favoured by senior rather than junior faculty.

Both these studies took place outside the NHS, in very different healthcare systems. Moreover, they are low-fidelity research designs, in which subjects are asked what they would do, rather than observed in their actual behaviours. In this type of setting, there is a strong motivation to look good, and a social pressure to give certain types of answers; which may not reflect the subjects' actual motivations and govern their real-life actions.

Very few teachers will teach for free. Some will teach for purely internal reasons, as elicited by Dahlstrom above, even in the face of overwhelming barriers and discouragement to teach. However, it is only an hypothesis that increasing personal or financial reward would actually improve teaching quality, and a very controversial hypothesis at that (see, for example, Ramsden 2003, p225). It is however less controversial that improving rewards for teaching might attract more people into actually starting, or maintaining, involvement in teaching activity.

It is possible that introducing payment for teaching in a clinical setting may actually make the situation worse. The current situation selects for enthusiastic and motivated teachers, who teach for personal goals rather than in pursuit of other gains. Recruitment of a larger number of less motivated teachers might not improve overall quality.

Gneezy and Rustichini performed a set of experiments on altruistic motivation versus pay for performance in two settings; taking a test, where the correct answers depended on effort rather than knowledge; and collecting donations for charity. They randomized subjects between groups doing the task for no money, for small amounts and for relatively large amounts of money. The fascinating results was that performance of the task significantly dropped off from the basic no-reward condition when small amounts of money were offered; and only recovered with larger rewards. From this they concluded
Pay enough or don't pay at all (Gneezy 2000).

This concept is backed up by the theory of motivation crowding. This is a major anomaly in the standard economic model that increasing reward should increase performance. However, reward may actually crowd out intrinsic motivation for the activity and actually depress performance (Frey & Jegen, 2001). There are a number of economic and experimental psychology demonstrations of this. The most illustrative example is blood donation.

Blood donation is generally altruistically motivated. A survey of all the empirical literature concluded that introducing money rewards increased blood donation in people who had not donated before, but decreased donation in previous donors. Money rewards also increased donation in private, anonymous settings, but decreased it when there was a public, recognition element to the activity, such as an on-campus blood donor drive (Goette 2010).

The literature here is complex. There may be very complex results to introducing payment for teaching in the NHS, which currently occurs effectively for free. The atmosphere surrounding the reward, the extent of conflict between reward and intrinsic motivation, and the amount of the reward are all likely to influence whether this improves or paradoxically reduces the quality of clinical teaching,

7.7 Nobody' s child

Teaching hospital Trusts, which received generous funding in the name of student education, had clear incentives, and even explicit permission, to use those funds for purposes outside teaching. This degree of extreme fungibility meant that they generally did not make a financial commitment to teaching as such. University medical schools received HEFCE funding in respect of their clinical students, and accept responsibility for the quality and outcomes of their education. However, they also treated this money fungibly, and generally diverted much of the money to more rewarding, research-based activity. Meanwhile, they were willing to cede the delivery of most of their teaching to the teaching hospital Trusts; and in doing so, become less able to influence the type and quality of education that students received in those Trusts.

In this environment, students may seek, and receive high quality clinical education. However, this happened more by chance than design, and relied on continued altruism and goodwill on the part of clinical teachers who have few incentives to teach, and no direct reward for teaching. There was no existing mechanism for assurance of quality. There were few mechanisms to address any decline in the standards of teaching, and none to maintain or improve current standards.

Undergraduate medical education in the NHS is nobody's child. It was actually very generously endowed in funding terms, but the terms of the endowment never protected the child's interests, encouraging diversion of funds to other activities; leaving the child starved and neglected, and unlikely to improve its condition under the system.

Chapter 8

The Puzzle of SIFT (and HEFCE-T)

Most hospitals are very proud of their teaching status. Of the 176 acute Trusts in England, 7 include "Teaching" and 18 include the word "University" in their name. As we have seen, the status of a teaching hospital implied being part of an elite group, distinct from the run-of-the-mill general hospital. Similarly, universities in the UK are primarily funded to teach students, and regard this as their core function.

It is a very great puzzle therefore, why these organisations have not prioritised their undergraduate teaching function. We have seen how generous funds, allocated for this nominal purpose, have been diverted to other institutional functions; and the role of teaching has become less recognized and rewarded in job plans of their staff.

8.1 Prestige and survival

Institutions are competitive. They may compete for resources, or simply for the benefits of being well thought of by others, usually the public, the media, or their peers. This benefit is the cornerstone of their reputation; which is the key to any social environment, with deep origins in the evolution of human psychology in a small group/hunter-gatherer environment (see for example, Henrich 2000, Brief 1986).

The benefits of reputation are undeniable. In the university setting, prestige has been codified in the form of league tables. With regard to the two of the most-quoted league tables; the QS methodology is based on questioning academics and employers about the reputation of other academic institutions, which counts 50% of an institution's score; in the Times Higher Education rankings, a similar reputational survey counts for around 30% of the score. The league table ranking of a university then constitutes an important part of how that university presents itself to its future

sources of income; students, government and prospective partners from both academic and business sectors.

Even in the NHS hospital sector, there are benefits to prestige. Although the NHS in the UK was set up to provide equitable treatment to the whole population, the institutions that provide this treatment remained stratified. We have seen how the student teaching function in the 19th century provided considerable extra income, which allowed development of an elite of teaching hospitals, which were able to provide extra staff and facilities on the basis of these extra resources. The teaching hospitals were protected in the early days of the NHS by government grants, and later by the introduction of SIFT. They continued to attract better staff and preferential development of advanced facilities.

The ranking of NHS hospitals into star categories were introduced in 2001 and scrapped in 2010; although it is thought that they may be re-introduced in the near future. Although the award of zero, one, two or three stars was based on a range of indicators, it did not carry any financial differential. However, the introduction of patient choice of hospitals in 2012 does have a financial dimension. In theory patients could choose a more reputable hospital for their treatment, and payment would accompany that choice. It remains to be seen if this becomes widespread enough to materially affect the financial position of individual hospitals.

As prestige is materially as well as psychologically beneficial to institutions, it follows that institutional behaviour will act in directions to maintain and enhance prestige. It is predictable that institutions will invest in areas which are counted towards the metrics that define prestige; and that other areas would suffer disinvestment.

In the case of universities, research is the major prestige-building area. This is a fairly recent idea, probably starting with Prussian universities in the late 19th century, and markedly enhanced by the investment of the US government in

research universities after 1945, stimulated by their involvement with the atomic bomb, radar, and other wartime scientific projects (Atkinson 2008). All university ranking methodologies feature research metrics as their main component. For the Times Higher Education rankings, research metrics are around 50% of the institution score, depending on subject area; in the Shanghai Jiatong rankings, research metrics are the only component.

From the viewpoint of university management, investment in research capacity represents a double-win opportunity. Research funds are a potentially unlimited source of income, which are necessary to escape the top-down funding model run by the government in its core funding of UK universities (Shattock 2010, p59). In addition, research success contributes to the university's prestige, and ability to attract better resources in future.

For NHS hospitals, there was a different consideration. For all of its existence, the NHS had been in financial deficit. All parts of all budgets were constantly under pressure. With the rise of the managerial class and the introduction of professional managers into the NHS after the Griffiths report 1983, these financial concerns came to dominate the whole agenda of the hospital, even when they ended up compromising the central mission of patient care (Francis, 2013). SIFT money, being recurrent, predictable, and subject to scant accountability, became a useful reserve against the constant financial pressure of running a hospital, to be fungibly deployed against immediate crises in different areas. The loosely-written guidelines (NHS Executive 1995) made it clear that SIFT money could be used for purposes outside of teaching, and effectively permitted its use "for the greater good" of the institution.

We used the SIFT money to stay alive; if we didn't exist, we couldn't teach, so to that extent, the SIFT money was used to support teaching (C1).

This quote came from the classic "hand on the door" situation described by Robson (Robson 2002), after completing an interview with a senior executive of a central teaching hospital NHS Trust. It reveals how senior management viewed, and justified the use of SIFT money for purposes outside of teaching; that everyday operation was an existential threat, to be met with any resources that came to hand. SIFT was a sizeable, and convenient resource; the investment was made in order to meet the running of the teaching hospital, with its additional staff and facilities over and beyond those of a standard district general hospital; that is, to maintain their elite position, rather than to create more prestige-generating options. It is therefore not surprising that the district general hospitals provided a better clinical placement teaching for students (Chapter 7.1), and that innovation for using SIFT to promote education also arose there (see Chapter 6.3.2).

8.2 Student collusion

It would be reasonable to expect students to raise objections to the diversion of money that is nominally destined to support their education, towards other purposes. Their attitudes to this, however, were curiously passive. There are some possible explanations.

Brown attributes this, not so much to the classic economic concept of economic asymmetry, where one side has more relevant information than the other; but to an information void, where students make choices without either relevant knowledge or understanding of their power, and use indirect or symbolic indicators of quality to make these choices. Chief amongst these are the interlinked marques of prestige, reputation and status (Brown 2013, p124).

Students value their university's prestige. This is an important component of their choice to apply to that university in the first instance, and it is in their interest to continue to support prestige-building activities.

Course and course content are the most important factors influencing the decisions of all groups of students, but after that high achievers applying to the most selective universities tended to base their decisions on its prestige and academic excellence and had a greater belief in their own competence than other high-achievers. Their decisions were strongly influenced by league tables, academic reputation and the idea of challenging themselves (Sutton Trust 2012).

Even when research is remote from their university experience, students understand that research achievement is beneficial to their own aspirations. For example, it is widely held that employers tend to recruit from a fairly narrow range of top-ranked (i.e. research-intensive) universities (see, for example, Milburn 2012).

There is a single monopoly employer for graduating medical students, the NHS, and virtually all new graduates will find employment within it, irrespective of which university they attended. This should reduce self-interest as a motive in students' attitudes to prestige. Nevertheless, students are, in general happy with their medical courses, and a big majority (ranging from 57-99%), would recommend their medical school in the National Student Survey (2014). This , however, may mask underlying discontent with teaching on their courses.

Gibbs makes the point that the NSS questions do not explore many facets of quality in teaching and learning, particularly relating to students' deep engagement with their studying. (Gibbs 2010, p32). There is some literature suggesting that students are more dissatisfied with their teaching, particularly on clinical placement, than is evident from the NSS return (Remmen 2000, Spencer 2003, Edafe 2013). There is some evidence that student satisfaction with medicine is actually on the decline; for the 2015 NSS, 13/32 medical schools had levels of overall satisfaction less than the 86% average for all courses in higher education; the lowest at 57% (King's College London) being very significantly below. This has increased from 8/32 in 2014, and 11/32 in 2013.

Our own work, based on over 100 reflective essays written by students on clinical teaching, has shown very deep-seated negative impressions of clinical teaching.

We were a little shocked at the negative perceptions of standard clinical teaching in the students' comparisons. In our previous work with first-placement student groups, (none of whom featured in the current work) we noticed a very negative perception of clinical teaching even before they had started their very first clinical placement; clearly, the opinions do not improve with time and experience. Students' perceptions of "standard" clinical teaching paints a picture of haphazard, unplanned, passive sessions, with low involvement of senior teachers, poor opportunities for feedback on individual performance, and no real opportunities to have improvement noted and certified (Edafe 2015).

To a large extent, most medical students are not aware of the dual funding system, and did not understand the nature and purpose of SIFT. As they are attached to the University and tend to spend time at different hospital providers, they generally feel that their education is provided by the university, which exerts control over events at the hospital. They generally do not understand that the university had no financial control over SIFT. If students were aware of the system, it would be a very interesting piece of research, probably using game theory, to investigate how much diversion of teaching funds that students would trade off, in order to promote research reputation, or to bolster patient care.

I propose that the reason why students are unconcerned about the use of "their" money runs rather deeper. Medical students identify themselves at an early stage with the medical profession; their core values relate to the welfare of patients, and they are reluctant to argue in their own interests when it can be viewed as an argument against the interests of patients. Students tolerate unsatisfactory teaching, particularly in the clinical years, as they view teaching as being secondary to the real purpose of running the hospital, patient care. They excuse declining standards of teaching as a result of the pressures that they see every day when they

experience the realities of working in the NHS. It is obvious to all students that their teachers are busy; they remain relatively unaware that the teacher's time which was paid for by SIFT has been diverted into patient care.

From 2012, the new fees regime meant that every medical school in England, and all medical schools in the devolved countries in respect of English students, have charged the maximum tuition fee of £9000/year. This fee meets or exceeds the full cost of the university's educational expenditure (Brown 2013), with concomitant reduction in the HEFCE teaching block grant. In fact, the HEFCE grant is currently zero in respect of most courses; the major exception is clinical medicine (along with veterinary medicine and dentistry), which retains a £10000 grant per student from HEFCE. This creates a return to the situation a century ago, when student income effectively paid for the medical school, and indirectly, supported the status of the teaching hospital. It remains to be seen whether this change will result in a change of student attitudes to their teaching; whether they will still tolerate the use of these funds for purposes remote to their education, or, indeed, permit the university to delegate its responsibility for clinical education to the NHS, while still in receipt of their fees.

8.3 Policy analysis

At this stage, I can complete the analysis of SIFT policy in terms set out by Musick , outlined in Chapter 2.2.4 (Musick 1998).

A. Conceptual:
    a. *What was the purpose of SIFT?*
       It was nominally to cover the expenses of medical student education, but really to cover the excess costs of the elite teaching hospitals.
    b. *How can these educational aims be measured?*
       There were never explicit educational aims, beyond the actual provision of student placements for the weeks contracted.
    c. *Does the policy tend to encourage its aims?*

There was minimal accountability, and almost no mechanisms to address problems.

B. Normative:

   a. *What expenses should be covered by SIFT?*

      SIFT was meant to cover the indirect costs of teaching medical students; but the amounts were so large that they ended up subsidising all the general activities of the hospital.

   b. *What should not?*

      Ironically, SIFT was spent on almost anything in the general budget of the hospital, but direct payment for teachers was excluded by the Winyard report.

C. Theoretical:

   a. *What theoretical framework and assumptions lie behind the formulation and continuation of this policy?*

      SIFT was developed as a mechanism for accounting for teaching hospitals' excess costs to allow a level playing field for bidding for provision of clinical services from purchasers. This could be characterised from an alternate viewpoint as a subsidy to perpetuate the advantageous financial position of those hospitals from that time forward.

D. Empirical:

   a. *Are there credible research studies that inform this policy? Is there research that speaks against this policy?*

      There was never a research basis for SIFT. It was always a pragmatic, top-down formula devised to meet a political imperative, the purchaser/provider split in healthcare funding.

   b. *What are the effects, intended and unintended, beneficial and otherwise, of this policy on its intended aims?*

      This has been the subject of this thesis. There have been few benefits, and very wide ranging negative effects on student education in the NHS.

E. Economic:

   a. *What is the impact of this financial policy on both funders and receivers?*

      SIFT was a significant income stream for hospital Trusts, up to 4-7% of gross income.

   b. *Does the policy deliver value for money?*

      Teaching hospital Trusts benefited from SIFT. Associated teaching hospital Trusts received payment for students, and tended to spend this in more identifiable ways in the students' interests. In educational terms, the sums involved are very large; much larger that in other, non-medical sectors.

   c. *What would be the impact of significant change?*

      Reduction in the SIFT subsidy would have major effects on teaching hospital Trusts, and a period of gradual adjustment is planned. The conditions attached to the funding may well change, with potentially large effects, but this change has not yet been clarified.

F. Political:

   a. *Was the adoption of this policy rooted in political thinking of its time?*

      Top-down policies were prevalent in the mid to late 20th centuries, and represented a form of command economy.

   b. *Has the political climate changed enough to justify policy change?*

      Probably, as it is clear that SIFT is an anomaly in the newly commoditised and marketised NHS.

G. Cultural:

   a. *Does this policy fit in with the organisational and professional cultures of the University and NHS? Would change disrupt this?*

      It is difficult to predict the consequences of change. Increasing the focus of SIFT on student education, and reducing the obvious excess funding might have wide ranging effects on the professional and organisational cultures of both University and NHS, which are used to

fungible funding that they have the independence to spend according to their priorities.

H. Ideological:

   a. *Does this policy serve the self-interest of the parties affected? How is this consistent with value for public money?*

      All the money was always used in the public interest, more or less. No money was diverted to corrupt ends, but nevertheless, it is clear that student education in the NHS has suffered.

   b. *Does the policy provoke potential or actual conflicts of interest?*

      The main conflict of interest is between students' educational quality and other priorities of NHS and universities. This will persist so long as student funding is not separated from these other, legitimate interests.

I. Historical:

   a. *What is the historical background of the present funding policy? Does this inform proposals for change?*

      This is largely accounted in Chapter 3. As SIFT has lasted for around 40 years, it has largely superseded its own history, and few people are aware of its origins and evolution.

J. Assumptive:

   a. *Are there key assumptions made by parties involved or affected by this policy?*

      The key assumption was that funding the costs of teaching hospitals would preserve their teaching function. In reality, the teaching function has become secondary to their other priorities. This is mirrored in the universities with regard to HEFCE funding.

   b. *Have these assumptions been made explicit and are they clearly understood by all parties?*

      All parties have understood that SIFT was too large for its nominal purpose. However, no provision has been made to preserve the teaching function from the fungible deployment of the funding.

K. Legal:

   a. *What is the legal basis of this funding? Do the legal aspects have a bearing on policy development or change?*

      The grant-in-aid status of SIFT, or its replacement, the HEE tariff is unlikely to change in future.

L. Logical:

   a. *Are statements made in favour of this policy logically sound? Would they bear critical inspection?*

      No and no. The critical non-sequitur was made by Winyard when he described SIFT as "supporting the teaching" but "not a payment for teaching as such". This was contradictory and illogical, but revealed some of the real motivations for this funding, which were not concerned with student education at all.

   b. *Are the consequences of the funding policy logically predictable?*

      Unfortunately so.

Analysis of HEFCE-T and student tuition fee income is more along the lines that this money, accompanying the students, and nominally linked to teaching, was also intended for more than just teaching; and together with a desire to preserve university autonomy, was used flexibly for other university missions, as well as for the central teaching mission (see Chapter 3.4, 3.8)

8.4 Conclusions

The dual funding of medical education ultimately became a "double whammy" (two unpleasant things happening together) for medical education.

The pattern of state funding of the universities encouraged them to invest their fixed income, which was linked to student numbers, into areas which had potential to produce financial growth. Research is an important mission of the modern

university; and is not only grow-able in this way, but increased research income in turn generates increased research support from government through the Research Excellence Framework. Therefore student-linked money from the state is not actually used for the students in any proportional way. In reality, as long as a certain minimum standard is maintained, to avoid excessive student complaint, the incentive is to use tuition fees for purposes outside student teaching, supporting other legitimate aims of the university. In medical schools, this incentive is relatively greater, as medical student numbers are strictly capped by government, and income cannot grow by student expansion.

The opposite situation attended medical student funding in the NHS. The amounts involved were always intended to cover the global excess costs of the elite hospitals, and were always far too large for their nominal purpose of student education. This was understood by almost everyone, with the notable exceptions of teachers and students. It was in the interests of the teaching hospitals to preserve their reputation for student teaching, but the system then came under pressure, which caused this interest to be relegated. The tariff system for clinical activity accounted (or at least intended to account) for the increased costs of complex medical work, removing most of the justification for SIFT. The new consultant contract atomized the general definition of the work of a senior hospital doctor; and although teaching of students was incorporated into the reward system, it was the least important part of that reward, and made to compete with more pressing activities and mandatory requirements, for the same portion of reward. There were rarely any financial benefits for excellence or penalties for opting out. As global hospital budgets came under pressure, the SIFT payment appeared as a fixed income; which could be diverted to other activities which could generate more income, following the same deficit funding model previously described. Above a certain minimum needed to actually accommodate their student weeks, and keep the SIFT money coming in, the teaching hospitals demoted their priority for student teaching.

All educational establishments ultimately depend on their success in learning and teaching. As long as students still graduate as reasonably competent doctors, the system is seen as doing its job, for all its imperfections, and there may be quite substantial attendant risks in the name of reform. This view risks being narrowly parochial in a globalised market for higher education. Complacency over standards of teaching and learning cannot serve as a driver for improvement, and ultimately can only lead to deterioration and decline.

The dual system of funding clinical teaching contained its own contradictions and perverse incentives. The most notable perverse incentive was for universities to relinquish the responsibility for clinical teaching to the Trusts, and for the Trusts to place this responsibility some way behind their day to day patient care mission, while leaving quality concerns to the university to pick up. Reforms in funding mechanism to promote teaching should look at single funding of a responsible body, to commission and purchase medical education. Logically, this should be the university; but the current record of the university sector, in particular regarding the clinical premium still provided by HEFCE grant, does not inspire confidence that this will automatically lead to improved teaching standards. It might be worthwhile to try an innovation; to set up a medical education academy that is a joint venture between Trusts and Universities, and for this new joint venture to be the fundholder. This system already exists in postgraduate medical education, but without much involvement of the university sector.

HEE have announced their intention to move to a commissioning model of education. This co-incides with a political priority to move to a commissioning model of healthcare provision within the NHS, and is going forward without evidence of its benefits. Possibly a "smart" commissioning system will deliver improvements in teaching standards, but the system needs to reward good practice and punish poor practice. As Trusts within the NHS are effectively monopoly providers, they are also effectively immune to punishment; it would be impractical for the university of X to switch their students from Trust X to Trust Y, whatever the

previous failures of Trust X. As with the whole of the artificial market experiment taking place within the NHS, the artificial market in education is more of an article of faith than one that has shown clear potential to deliver improvements (Brereton & Vasoodevan 2010, Smith & Curry 2011).

The tide will only turn with innovations outside the funding schemes. We have seen that the major problems with medical student learning and teaching lies with the lack of professionalism in respect of teaching within the medical schools and NHS. Few staff are paid for teaching; even fewer are promoted for good teaching. No staff member considers that they are predominantly paid for teaching. Standards of teaching are only loosely accountable, above a minimum that would excite student rebellion. Although we have seen that there are problems with paying for work that is done altruistically, ultimately the teaching mission will need professionalisation. Teachers will have to be paid, to become qualified, to seek further development, and to be accountable for their students' achievements. Their organisations will have to invest in this, and the funding mechanism will have to support this. Given the history of SIFT, it seems unlikely that the funding organization will actually lead this change, but there is always hope.

8.5 Postscript

On 1st April 2013, SIFT passed into history. A new body, Health Education England (HEE) assumed responsibility for funding undergraduate and postgraduate medical education in England, while the devolved governments retained their previous, SIFT-like systems. The core, dual-funded principle of medical education remains intact, as the universities still receive separate funding, complete with a clinical premium, for their medical students.

The passing of SIFT was little noted, and unlamented. In his evidence to the House of Commons Select Committee on Health, Sowden, on behalf of the postgraduate deans, stated

the current arrangements were opaque and through a glass darkly for almost everyone in the system. You cannot properly explain to anybody exactly how money flows right to the end point, which is the delivery of education and training for the student or trainee. That is not an acceptable position.

and the committee concluded

The current arrangements under which providers are paid by the NHS for education and training are anachronistic and anomalous. Payment is only partially based on student or trainees numbers; it is not linked to quality; it is unjustifiably inconsistent between different professional groups, parts of the country and types of provider; and there is an almost total lack of transparency about how it is spent (House of Commons Health Committee 2012).

During 2014, HEE have embarked on an ambitious, bottom-up costing exercise, involving all English hospital Trusts. Meanwhile, they have set a tariff of £34623 per student per year (multiplied by a market forces factor MFF, which essentially compensates for the extra cost of London-based placements), based on some pilot data in eight Trusts. For the first time, direct costs of student teaching, including teacher time and pay, are supposed to be incorporated in the costing. The costing is based on self-report, and as we have seen, most Trusts do not actually know what they spend on medical student education. The results of the exercise are currently awaited; but have not influenced the tariff for 2015, which predictably has been decreased by 1.9% as a cost saving target.

References

Abeler J, Marklein H. (2010) Fungibility, labels and consumption. IZA discussion paper 3500, available from SSRN: http://ssrn.com/abstract=1139870 or doi:10.1111/j.0042-7092.2007.00700.x

Atkinson R, Blanpied W. (2008) Research universities: core of the US science and technology system. Tech. in Society: 30; 30-48.

Ball S.J. (1990) Politics and policy making in education: explorations in policy sociology, London, Routledge ISBN; 0415675340

Ball SJ, Shilling C. (1994) At the crossroads: education policy studies. Br.J. Ed. Studies; 42; 1: 1-5

Barnard G.A (1977) How the University Grants Committee determines allocations of university grants – a case study in statistical fallacies. J.Roy.Statistical Soc. A; 140: 200-202

Berdahl R. (1983) Co-ordinating Structures , in Shattock M. (ed) The structure and governance of higher education. Society for Research into Higher Education, ISBN 0900868910, p68-103

Beatty T, Blow L, Crossle T, O'Dea C. (2011) Cash by any other name ? Evidence of Labelling from the UK Winter fuel payment. Discussion paper, http://www.york.ac.uk/media/economics/documents/seminars/Crossley_Feb_2011.pdf

Betsi Cadwalader Local Health Board, (2011) Annual accounts 2010-11, accessed at http://www.wales.nhs.uk/sitesplus/861/opendoc/198376

Bevan G. (1987) Financing the additional service costs of teaching English medical students by the service increment for teaching (SIFT): an exposition and critique. Financial Account. & Management; 3: 147-160

Bevan G. (1999) The medical service increment for teaching (SIFT): a £400m anachronism for the English NHS? Br. Med. J: 319; 908-911

Boyer E.L. (1990) Scholarship reconsidered; priorities of the professoriate. Carnegie Foundation. ISBN 0-7879-4069-0

Brereton L, Vassodevan V. (2010) The impact of the NHS market. Civitas, London accessed on http://www.civitas.org.uk/nhs/download/Civitas_LiteratureReview_NHS_market_Feb10.pdf

Brief A, Motowildo S.J. (1986) Prosocial organizational behaviors. Acad.Manage.Rev:11; 710-725

British Medical Association, Health Policy and Economic research Unit. (2007) Medical service increment for teaching (SIFT) funding report. . Available from http://www.bma.org.uk/images/Siftreport_tcm41-147112.pdf

British Medical Association., Health Policy and Economic Research Unit. (2010) BMA survey of the consultant contract in a changing NHS. available on http://bma.org.uk/-/media/files/pdfs/practical%20advice%20at%20work/contracts/conssurveyconsultantcontractinchangingnhs2010.pdf.

Brown R, Carasso H. Everything for Sale? (2013) The Marketisation of UK Higher Education. Society for Research into Higher Education, Routledge ISBN 978-0415809801

Burnett K. (2014) Do we have to leave the Russell group to be useful? 3 June 2014, accessed on http://www.sheffield.ac.uk/vc/dowehavetoleavetherussellgrouptobeuseful

Calman K.C. Medical Education, Past Present and Future. (2006) Churchill Livingstone ISBN 978-0443-07473-8

Carswell J. (1985) Government and the universities in Britain; programme and performance 1960-1980. Cambridge University Press. ISBN 0 521 25826 x

Chamberlain N. (1936) letter in Times Education Supplement 7 March 1936; 86

Cherry S. (1996) The hospitals in Britain 1860-1939. New Studies in Economics and Social History, Cambridge University Press.

Christiaensen L, Pan L. (2010) Transfers and Development – Easy come, easy go ? Working Paper, United Nations University 2010/125. Available at; http://www.dec.wur.nl/NR/rdonlyres/7C4AEB9E-E995-48D3-BF03-C7663AFAC3D7/123426/wp2010125.pdf

Clack G.B, Bevan G, Peters T.J, Eddleston A.L. (1992) King's model of allocating service increment for teaching and research (SIFTR) Br. Med.J; 305: 95-6

Clack G.B, Bevan G, Eddleston A.L. (1999) Service increment for teaching (SIFT); a review of its origins, development and current role in supporting undergraduate medical education in England and Wales. Med. Education: 33; 350-8

Clack G. (2000) Medical service increment for teaching (SIFT). Not an anachronism but essential to promote quality in medical education. Med. Education;34: 88-89

Clark B. (2008) Delineating the Character of the Entrepreneurial University. Chapter 30. P497-516, in On Higher Education, Selected writings 1956-2000. Johns Hopkins University Press, Baltimore. ISBN 0 8018 9021 7

Clark-Kennedy A.E. (1966) The London Hospitals and the Rise of the University. in Poynter F.N. ed. The Evolution of Medical Education in Britain. Pitman Medical, London

Lord Cohen of Birkenhead. (1968) Medical Education in Great Britain and Ireland 1858-1967 Br.J.Med.Educ .;2: 87-97

Cook W.R. (1976) How the University Grants Committee determines allocations of recurrent grants – a curious correlation. J.Roy.Statistical Soc. A; 139: 374-384

Cope Z, (1966) The private medical schools of London, in Poynter F.N. ed. The Evolution of Medical Education in Britain. Pitman Medical, London

Cooper, J.A.D. (1983) The changing scene in medical education. Bull.Ann.N.Y.Acad.Med.; 59: 563-8

Corbin J, Strauss A. (1990) Grounded Theory Research; Procedures, Canons and Evaluative Criteria. Zeitschrift fur Soziologie; 19: 418-27

Culyer A.J, Wiseman J, Drummond M.F, West P.A. (1978) What accounts for the higher costs of teaching hospitals ? Social Econ. Admin.; 12; 20-30

Dahlstrom J, Dorai-Raj A, McGill D, Owen C, Tymms K, Watson D.A. (2005) What motivates senior clinicians to teach medical students ? BMC Medical Education; 5: 27-37

Dainton F. (1977) comment on Cook 1976, J.Roy.Statistical Soc. A; 140: 199

Department of Health (2009) Education commissioning for quality, accessed on http://webarchive.nationalarchives.gov.uk/20130107105354/http:/www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_110778.pdf

Department of Health (2010) Payment by Results; Background. accessed at National Archives on http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Managingyourorganisation/NHSFinancialReforms/DH_077259

Department of Health. (2012) Liberating the NHS; Developing the Healthcare Workforce., from design to delivery. available on https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/152168/dh_132087.pdf.pdf

Department of Health (2013) Education outcomes framework indicators; technical guidance 2013/14. Accessed on https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225361/EOF_Indicators_-_Technical_Guidance_2013_14.pdf

Department of Health, Social Services and Public Safety, Northern Ireland Government (2009) Review and Modernisation of Supplement for Undergraduate Medical and dental education (SUMDE) accessed on www.dhsspsni.gov.uk/consultation-document-draft-sumde-review.pdf

Dryzek J. (1982) Policy analysis as a hermaneutic activity. Policy Sciences ;14: 309-329

Duffin J. (2001) What goes around, comes around: a history of medical tuition. CMAJ; 164; 50-56

Edafe O, Mistry N, Chan P. (2013) First impressions count: does FAIRness affect adaptation of clinical clerks in their first clinical placement? Med. Teach. 35; 740-6

Edafe O, Brooks W.S, Laskar N.S, Benjamin M.W, Chan P. (2015) Impact of FAIR clinical teaching principles in action, Unpublished at this date, presented at ASME and AMEE conferences 2015.

Edwards B. (1993) The National Health Service; a manager's tale 1946-1992, Nuffield Provincial Hospitals Trust, London

Ferelli, M. (2015) Higher education funding and the role of HEFCE. lecture to the Higher Education Policy Network, Sheffield, 11 June 2015

Flexner A. (1910) Medical Education in the United States and Canada. Carnegie Foundation, The Merrymount Press, Boston (reproduced by photolithography, W.F. Fell Co. 1960 & 1972)

Francis R. (2013) The Mid Staffordshire NSH Foundation Trust Public Inquiry. Accessed on http://www.midstaffspublicinquiry.com/report

Franzini L, Low M.D, Proll M.A. (1997) Using a cost construction model to assess the cost of educating undergraduate medical students at the University of Texas-Houston Medical School. Acad. Med.; 72: 228-237

Freedom of Information Act (2000) Schedule 1 available on http://www.legislation.gov.uk/ukpga/2000/36/schedule/1?view=plain

Frey B.S, Jegen R. (2001) Motivation crowding theory. J.Econ.Surveys; 15: 589-612

General Medical Council (2008) QABME inspection report King's College Medical School, accessed on http://www.gmc-uk.org/static/documents/content/KCL.pdf

General Medical Council (1993) Tomorrow' s Doctors

General Medical Council (2003) Tomorrow' s Doctors

General Medical Council (2009) Tomorrow' s Doctors, downloaded from http://www.gmc-uk.org/static/documents/content/Tomorrow_s_Doctors_0414.pdf

Gibbs G. (2010) Dimensions of Quality. The higher Education Academy ISBN 978-1-907207-24-2

Gibbs G. (2012) 'Implications of 'Dimensions of quality' in a market environment. Higher Education Academy (HEA Research Series), ISBN 978-1-907207-62-4, accessed on http://www.new2.heacademy.ac.uk/assets/documents/evidence_informed_practice/HEA_Dimensions_of_Quality_2.pdf

Gilpin T. (2010) Workforce and Education report, Yorkshire and Humber SHA available on http://www.yorksandhumber.nhs.uk/document.php?o=4790

Gneezy U, Rustichini A. (2000) Pay enough or don't pay at all. Q. J. Economics: 115: 791-810

Goette L, Stutze A, Frey B.M. (2010) Prosocial motivations and blood donations; a survey of the empirical literature. Transfus. Med. Hemother.; 37: 149-154

Gutenstein M. (2000) How much? The price of medical education Student BMJ: 8: 34

Halpin D. (1994) Practice and policy in educational research; in Halpin D & Troyna B eds. Researching educational policy: ethical and methodological issues. Falmer (Taylor & Francis) ISBN; 0750703458

Hamlin A, (1994) Regulation, Rent seeking and reform in higher education. Financial Account. Management; 10: 291-304

Health Education England. (2013) Draft HEE LETB Annual Accountability Agreement. Accessed on http://hee.nhs.uk/wp-content/uploads/sites/321/2013/03/Agenda-Item-14-LETB-Accountability-Agreements.pdf

Health Education England. (2014) Costing education and training. Accessed on https://hee.nhs.uk/work-programmes/resources/costing-education-and-training/

Henderson J. (2005) A Life of Ernest Starling. Oxford University Press USA ISBN 978-0195177800

Hendry R.G, Kawai G.K, Moody W.E, Sheppard J.E, Richardson M. Mathers J.M, Parry J.M. (2005) Consultant attitudes to undertaking undergraduate teaching duties: perspectives from hospitals serving a large medical school. Med. Education; 39: 1129-39

Henrich J, Gil-White F. (2000) The evolution of prestige: freely conferred deference as a mechanism for enhancing the benefits of cultural transmission. Evolution & Human Behavior: 22; 165-196.

Higher Education Funding Council for England (2008) Funding Higher Education in England downloadable from https://www.hefce.ac.uk/pubs/year/2008/200833/name,63774,en.html

Higher Education Funding Council for England (2010) Guide to Funding download from; http://www.hefce.ac.uk/Pubs/hefce/2010/10_24/10_24.pdf

Higher Education Funding Council for England. (2014) Guide to Funding accessed from http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/2015/201504/2015_04.pdf

Higher Education Funding Council for England (2015) Financial health of the higher education sector. Downloaded from http://www.hefce.ac.uk/pubs/year/2015/201507/

Higher Education Statistics Agency. (2014)Income and Expenditure of Higher Education Institutions. accessed on https://www.hesa.ac.uk/pr201#Expenditure

Higher Education Statistics Agency. (2015) Free online statistics – Finance. Accessed on https://www.hesa.ac.uk/index.php?option=com_content&view=article&id=1900&Itemid=634

Hoban J.D, Cariaga-Lo L, Bennett B.A, Ernest J.M, Vanderweide S.A, Harrington M.E (1996) Incentives for teaching. Academic Med. ; 71: 106-7

House of Commons Health Committee First Report (2012) Education, training and workforce Planning. ISBN 9780101843522, accessed on https://www.gov.uk/government/publications/government-response-to-health-select-committee-inquiry-into-education-training-and-workforce-planning

Hull C. (1985) Between the lines; the analysis of interview data as an exact art. Br. Educ. Research J. ;11: 27-32

Jenkins A. (1995) The Research Assessment Exercise, Funding and Teaching Quality. Quality Assurance in Education; 3: 4-12

JM Consulting (2012) Review of Clinical Subject Weightings, Report to HEFCE accessed on http://www.hefce.ac.uk/pubs/rereports/year/2012/clinsubjwghtgs/

Kerr S. (1995) An Academy Classic; On the folly of rewarding A while hoping for B. The Academy of Management Executive ; 9:7-14

Kogan M. (1988) Education Accountability, 2nd ed., Hutchinson, ISBN 0091757347

Korszun A, Dharmaindra N, Koravangattu V, Bhul K. (2011) Teaching medical students and recruitment to psychiatry: attitudes of psychiatric clinicians, academics and trainees. The Pysch. Bulletin; 35: 350-3

Levy P.F. (2001) The Nut island effect; when good teams go wrong. Harvard Business Rev.: 79: 51-9

Machin S, Vignoles A (2006) Education policy in the UK. Centre for the Economics of Education, London School of economics. ISBN 07530 1853 5; available on http://cee.lse.ac.uk/ceedps/ceedp57.pdf

McCulloch G. (2004) Documentary Research in Education, History and the Social Sciences. SRES series 22, Routledge Farmer, New York, ISBN 415-27286-6

Medical Schools Council. (2004) The ten key principles for joint working between the Universities and the NHS. Available from; http://www.medschools.ac.uk/AboutUs/Projects/Documents/10%20Key%20Princ.pdf

Mercer J, (2007) The challenge of insider research in educational institutions. Oxford Review of Education; 33:1-17

Milburn A. (2012) Fair access to professional careers. accessed on https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61090/IR_FairAccess_acc2.pdf

Ministry of Health. (1944) Report of Inter-departmental committee on medical schools (Goodenough report) HMSO

Moodie G.C. (1983) Buffer, coupling and broker: reflections on 60 years of the UGC. Higher Education: 12; 331-347

Musick D.W. (1998) Policy analysis in medical education: a structured approach. Med.Educ.Online 3: 2 available on http://med-Ed-Online

National Audit Office (2014) Financial relationships with third sector organisations - A decision support tool for public bodies in England http://www.nao.org.uk/decision-support-toolkit/stage-2-strategic-decisions/choose-a-funding-channel/ 2014

National Health Service Executive Service Increment for Teaching; Operational Guidance (Health Service Guidelines) (1995) HSG/95/59

National Health Service (2000) NHS Plan 2000 http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_118523.pdf)

Newman C. (1957) The evolution of medical education in the nineteenth century. Oxford University Press, London

Newman G. (1918) Some notes on medical education in England. HMSO

NHS Executive (1995) Health service guidelines. Service increment for teaching; operational guidance. HSG(95)59

NHS Yorkshire and Humber (2006) Agreement for the provision of healthcare professional pre and post registration training and education programmes.

Pack H, Pack J.R. Is foreign aid fungible? The case of Indonesia. (1990) Economic Journal; 100: 188-194

Pack H, Pack J.R. Foreign aid and the question of fungibility. (1993) The Review of Economics and Statistics; 75: 258-265

Parker J. (2008) Comparing research and teaching in university promotion criteria. Higher Ed. Quarterly 62; 237-251

Perrin J. (1987) The costs and joint products of English teaching hospitals. Financial Account. & Management; 3(2); 209-230

PriceWaterhouseCoopers (2007)The economic benefits of a degree. Universities UK Research Report. ISBN 1 84036 148 4 download only from http://www.universitiesuk.ac.uk/Publications/Pages/Publication-257.aspx

Quality Assurance Agency (2009) Handbook for Institutional audit: England and Northern Ireland. ISBN 978 1 84979 010 9)

Ramsden P. (2003) Learning to Teach in Higher Education. Routledge, ISBN 988-0415303453

Remmen R, Denekens J, Scherpbier A, Hermann I, van der Vleuten C, van Royne P, Bossaert L. (2000) An evaluation study of the didactic quality of clerkships. Med. Educ. 24; 460-262

Riesman D. (1980) On Higher Education: The Academic Enterprise in an Era of Rising Student Consumerism. Jossey-Bass, ISBN 0-7658-0438-7

Rivett G. (2015) The development of the London Hospital system 1823-2013 2nd ed. Self published, www.londonhospitalsystem.co.uk

Robson C. Real World Research 2nd ed. (2002) Blackwell Publishing, Oxford, ISBN 978-0-631-21304-8

Royal Commission for Medical Education 1965-8 report (Todd report) (1968) HMSO

Royal London Hospital (1992) RLHT/A/10/7/3, St Bartholomew's Archives, London

Ryder D. (1996)The analysis of policy: understanding the process of policy development. Addiction; 91: 1265-70

Salter B, Tapper T. (1994) The State and Higher Education. Woburn Press. Essex

Scott J. (Scott Ross Partnership) Service Increment for Teaching (SIFT) Review. (2013) A report for the Welsh government. Download from http://gov.wales/docs/dhss/publications/131216reporten.pdf

Seabrook M.A. (2003) Medical teachers' concerns about the clinical teaching context. Med. Education; 37: 213-222

Shattock M. (ed) (1983) The structure and governance of higher education. Society for Research into Higher Education, ISBN 0900868910

Shattock M. (1994) The UGC and the management of British universities. Society for Research into Higher Education Open University Press ISBN 0-355-19161-4

Shattock M, Rigby G, for CUA Resource Allocation group. (I983) Resource allocation in British universities. Society for Research into Higher Education, ISBN 090086897

Shattock M. (2010) Managing successful universities. 2nd ed. Society for Research into Higher Education, Open University Press.

Shattock M. (2012) Making policy in British Higher education 1945-2011 . Open University Press ISBN 978 0 335241866

Sheldon T.A. (1991) The NHS Review and the Funding of Teaching Hospitals. J. Management in Medicine: 5; 6-17

SIFT accountability report. (2000-1) Department of Health, available on http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4139369.pdf

Smith J, Curry (2011) Commissioning, Chapter 3 in Dixon A, Mays N eds. Understanding New Labour's reforms of the English NHS, King's Fund. London ISBN 978 1 85717 626 1, accessed on http://www.kingsfund.org.uk/sites/files/kf/chapter-3-commissioning-new-labours-market-reforms-sept11.pdf

Southampton University Hospitals NHS TrustInformation for medical students. (2010) SIFT diagram available from; http://www.suht.nhs.uk/Media/suhtideal/Doctors/SIFTDiagram.pdf

Spencer J. (2003) Learning and teaching in the clinical environment. Br,Med.J. 326: 591-4

Stark P. (2003) Teaching and learning in the clinical setting: a qualitative study of the perceptions of students and teachers. Med. Education; 37: 975-982

Stark P. Analysis of the GMC QABME Reports (2003-2008) unpublished, personal communication.

Sutton Trust, with the Department of Business, Innovation and Skills (BIS) (2012) Tracking the decision making of high-achieving higher education applicants. Accessed on https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82789/12-1240-tracking-decision-making-of-high-achieving-higher-education-applicants.pdf

Swanwick T (ed) (2010) Understanding Medical Education. Wiley Blackwell ISBN 978-1405196802

Taylor S. (1997) Critical policy analysis; exploring contexts, texts and consequences. Discourse; duties in the cultural politics of education; 18:23-35

Thaler R.H. (1990) Anomalies; savings, fungibility and mental accounts. J.Econ.Perspectives; 4: 193-205

Thaler R,H. Mental accounting matters. (1999) J. Behavior. Dec. Making;12; 183-206

Thaler R.H, Mullainathan S (2007) Behavioral Economics, The Concise Encyclopedia of Economics 2nd ed. Ed Henderson D.R., Liberty Fund, www.econlib.org

Thomas H. (2000) Power in the resource allocation process: the impact of "rational" systems J.Higher Ed. Policy & management: 22; 127-137

Tight M. (2009) The development of higher education in the United Kingdom since 1945. Society for Research into Higher Education Open University Press ISBN 9780 33 521642 0

Tollison R.D. (1982) Rent seeking; A survey. Kyklos; 35: 575-602

Tollison R.D. (2012) The economic theory of rent seeking Public Choice; 152: 73-82

TRAC Development Group (2014) TRAC Guidance; the transparent approach to costing for UK higher education institutions. Accessed on http://www.hefce.ac.uk/media/hefce/content/What,we,do/Leadership,governance,and,management/Financial,sustainability,and,TRAC/TRAC,guidance/TRAC%20Guidance%20August%202014%20Version%201.0.pdf

Walsh K (ed) (2013) Oxford Textbook of Medical Education . Oxford University Press, 978-0-19-965267-9

Welsh Assembly Government. (2009) Service agreement for the provision of medical undergraduate clinical teaching, 1 Apr 2009-31 Mar 2010.

Williams G. (1992) An evaluation of new funding mechanisms in British higher education: some micro-economic and institutional management issues. Higher Ed. In Europe: 17; 65-85

Williams S, Buchan J. (2006) Assessing the new NHS consultant contract. King's Fund. ISBN-10: 1 85717 547 6 available from; www.kingsfund.org.uk/document.rm?id=6365

Williamson S. on behalf of the Economic History Society. www. Measuringworth.com

Windeyer B. (1966) University Education in the twentieth century. In Poynter, ed. The evolution of Medical Education in Britain, Pitman Medical.

Winyard G. (1995) SIFT into the future; report of the advisory group on SIFT.NHS Executive

Appendix

The University Of Sheffield.

The School Of Education.

Philip Chan

Head of School
Professor Jackie Marsh

Department of Educational Studies
388 Glossop Road
Sheffield
S10 2JA

Telephone: +44 (0)114 222 8096
Email: Jacquie.gillott@sheffield.ac.uk

03 February 2012

Dear Philip

ETHICAL APPROVAL LETTER

Undergraduate Medical Education Funding in the UK: principles and effects

Thank you for submitting your ethics application. I am writing to confirm that your application has now been approved.

You can proceed with your research but we recommend you refer to the reviewers' additional comments (please see attached).

This letter is evidence that your application has been approved and should be included as an Appendix in your final submission.

Good luck with your research.

Yours sincerely

[redacted]

Dr Simon Warren
Chair of the School of Education Ethics Review Panel

cc Prof Gareth Parry
Enc Ethical Review Feedback Sheet(s)